THE PROFESSIONAL TREATMENT OF SUBJECT-MATTER

BY
EDGAR DUNNINGTON RANDOLPH

SUBMITTED
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY
IN THE FACULTY OF PHILOSOPHY
COLUMBIA UNIVERSITY

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THE MAPLE PRESS COMPANY, YORK, PA.

ACKNOWLEDGEMENTS

Acknowledgements may be made at large to Teachers College for the abiding stimulus of an electric atmosphere. In the course of four years spent as a student in its walls I have incurred lasting obligations involving a dozen teachers,—often appearing to disagree fundamentally in their views. This is a debt shared with many others. More specific is my obligation to the authors of Bulletin Number Fourteen of the Carnegie Foundation, 1920: *The Professional Preparation of Teachers for American Public Schools,* which furnished a model of qualitative evaluation of school work. The fundamental theory of teacher-preparation there set forth is basic to this study. Its influence will be manifest to any who read the following pages. But here again the obligation is not unique.

In working out the study, however, my obligations became localized. Especially heavy is my debt to W. C. Bagley. Without the inspiration of his classwork the study would not have been undertaken and without his counsel could not have been completed. The specific acknowledgements of his influence throughout the study are but fragments of the actual debt.

Heavy also is my debt to I. L. Kandel. His swift and kindly-incisive criticisms were characteristically educative beyond their relation to the immediate pressures of a doctor's dissertation.

Next to these my heaviest obligation is to Miss Rosamond Root, whose unselfish zeal for the promotion of others substantially increased the amount of time available to me for writing.

It would be ungrateful, however, not to mention the important help received from a considerable number of teachers in normal schools and teachers colleges, who answered questions relating to their courses and criticized the illustrative sections with which the study closes. Without their aid the exposition in Chapter III would have been less certain, and the illustrations in Chapter IV would have been less pertinent.

Finally, thanks are due to the World Book Company, Yonkers, New York, for permission to quote from Edward Porritt's *Evolution of the Dominion of Canada.*

EDGAR D. RANDOLPH.

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CHAPTER I

THE PROBLEM IN ITS SETTING

I. The Genesis of Diverse Professional Programs

1. Three Organizing Ideas in Force.

Whatever the theory they hold of their distinctive function, schools for the professional education of teachers all recognize two crucial needs of the service,—scholarship and professional fitness. Ignoring minor variations and wide overlapping, it is clear that their responses to these abiding needs are embodied in three prevalent curricular "patterns." Two of these make specific provision for subject-matter,—one for the actual elementary materials later to be taught;[1] the other for advanced academic studies.[2] The third, though attempting to realize the early ideal of an "exclusively professional" education for teachers, has always found it necessary to deal with the school studies, and in effect is usually a weakened form of the first type.[3]

All three likewise deal with the companion need of teachers,—professional fitness. This too they conceive of differently, some emphasizing heavily the immediate pressures upon the teacher for adjustment to the more external classroom situations and for a similar ready skill in teaching; others the less tangible qualities demanded by the ultimate purpose of the calling,—"vision," "professional outlook," "professional intelligence." The first had perhaps its extreme expression in President S. H. White's conception that the normal school should so organize its training that for the graduate beginning his public school work "every step should be mainly a repetition, not a venture."[4] This view of professional "fitting" was somewhat more than implicit in the earliest notions of the normal school's function;[5] and the mechani-

[1] Massachusetts, Indiana, Ohio, e.g.

[2] Illinois, Michigan, Georgia, Alabama, e.g.

[3] Connecticut, New York, Idaho, e.g.

[4] Proceedings, N.E.A., 1877, p. 170. See also 1873, p. 190.

[5] E.g., Thomas Palmer, The Teacher's Manual, 1839, p. 100. Barnas Sears, Annual Report, 1850, quoted by Barnard, On Normal Schools, p. 73.

cal results which in combination with the immaturity and low scholarship of the students it tended to produce, were early met by protests from many of the advocates of "strictly professional" education.[1] It was sufficiently prevalent, however, at the beginning of the twentieth century to evoke careful statements of the need for "professional intelligence:"

> "It is possible for a student to acquire outward form of method without capacity to put it to genuinely educative use. . . . Immediate skill may be got at the cost of power to go on growing. . . . Later 'progress' may with such consist only in perfecting and refining skill already possessed. Such persons seem to know how to teach, but they are not students of teaching. . . . Unless a teacher is . . . a student he may continue to improve in the mechanics of school management, but he can not grow as a teacher, an inspirer, and director of soul life . . ."[2]

This wider view of what is professional also had its predecessors, —notably in statements of James Carter,[3] Bronson Alcott,[4] Calvin Stowe,[5] and H. B. Buckham,[6] for example. One phase of it (the emphasis on "vision") was well "illustrated in the educational views of President Z. X. Snyder, which are very evident in the committee report of 1898."[7]

Over the development of the typical organizations for meeting the recognized needs of teachers a brief preliminary perspective will be attempted as the most effective means of defining the problem of this study. The experience of three quarters of a century in the effort to secure both values best reveals the enduring difficulties.

To start with, it will be useful to consider that the variety of practice in the education of teachers indicates unsettled problems; that the school for teachers is still engaged in its original task of differentiating itself from schools of general education.[8] To see

[1] E.g., Edward A. Sheldon, Proceedings, National Teachers' Association, 1863, p. 95; and President Newell, in Discussions, Proceedings, N.E.A., 1871, pp. 148, 154.

[2] John Dewey, Third Year Book, National Society for the Scientific Study of Education, 1904, pp. 13, 15. Proceedings, N.E.A., 1877, p. 155f.

[3] Barnard, op. cit., p. 75f.

[4] Bronson Alcott, Early Intellectual Education, American Institute of Instruction, 1832.

[5] Barnard, op. cit., p. 101f.

[6] Proceedings, N.E.A., 1873, p. 196.

[7] Proceedings, N.E.A., 1898, pp. 837–843, especially the six "centers of interest from which to derive a course of study."

[8] Proceedings, N.E.A., 1888, pp. 473, 512.

in what aspects of its work it has not satisfied its own ideal of its function is one purpose of this study. In the course of the exposition it will become apparent that at bottom the difficulty has always been that of securing a flexibly *relevant scholarship*,—of wedding the apparently divergent ideas of liberal education and of professional training.[1] Are they, as has often been averred, largely incompatible,—so that they must be pursued separately and each in a different spirit? This attitude was congenial to the established ideals and technique of general education and, either as a reasoned belief or as inertia, has been a persistent factor in the shaping of curricula for the education of teachers.[2] Or are they in reality commensurable,—so that they may be integrated in courses and curricula planned throughout with an eye single to the needs of the service? Belief in this, first clearly expressed in America by Calvin Stowe (1837),[3] has had since 1865 a many-sided but sporadic and discontinuous growth,[4] reaching perhaps its most comprehensive viewpoint in the integrations suggested by the authors of *Bulletin Number Fourteen* of the Carnegie Foundation in 1920.[5]

Starting with the sound conception of the *teacher's peculiar* need of scholarship, under the irritant stimulus of the nascent professional ideal, the new institution gradually isolated from the objectives of general education sundry items bearing on ascertained needs of the service, not all of which had theretofore been conscious concerns of liberal arts education. To these from decade to decade were added elements from the slowly enlarging professional ideal. In the 'eighties and 'nineties these came to be described as "the *teacher's knowledge*."[6] Thus there was in practice an interplay between the ideals of liberal education on the one hand and of professional "fitting," on the other hand,—an interplay which substantially modified, clarified, and enlarged both conceptions of the teacher's need and gradually lessened the opposition between them. In effect this give and take always

[1] Proceedings, N.E.A., 1894, p. 853.

[2] Proceedings, N.E.A., 1877, p. 163; 1887, p. 499; and W. H. Payne, The Education of Teachers, pp. 15, 48f.

[3] Barnard, op. cit., 106f.

[4] Proceedings, National Teachers' Association, 1865, p. 277f., Proceedings, N.E.A., 1873, p. 190f., 1877, p. 146f., 1877, p. 487f., 1890, p. 718f.

[5] The Professional Preparation of Teachers for American Public Schools, 1920.

[6] Proceedings, N.E.A., 1889, p. 581; 1894, p. 853.

meant the adaptation of the older ideal and technique to the new purposes. It was a groping departure from the traveled roads of established academic procedure toward the dimly apprehended goal of a scholarship consciously *relevant* to the work of the teacher,—an ideal still in process of definition, and still taking its chief stimulus from the same relationship.

2. The Problem of the Study.

The heavy concern of this study, therefore, is with the treatment given to subject-matter in professional schools devoted to the education of teachers. Looking back at the central struggle in past practice and forward with the tendencies of present effort, the monograph raises its controlling questions: *Should teachers' courses in a specified subject-matter (of, say, history, geography, arithmetic, or grammar) be given a special treatment that will differentiate them in thoroughgoing fashion from liberal arts courses in the same field? And if so, what should be the basis and methods of differentiation?*

These questions compactly state the problem of the study and indicate the direction of its constructive effort.

The first is a question about the scope of the responsibility of the teacher of subject-matter in a teachers college. What is it, as things are? This question will be answered in detail later. For the moment a perspective over the situation will be most useful. In a general way it is clear from the conspectus given above that the character of his responsibility is somewhat predetermined. In its elements, his "teaching-situation" will vary with the curricular organization and the educational philosophy of the school in which he is employed. The diversity of both of these is considerable, but a general *milieu* may be outlined. On some level or other he will teach students of collegiate rank. In most schools, at best, some nine tenths of the students will have with him only such courses as a two-year curriculum can afford. In practice the time allotted to subject-matter in a given school study will vary roughly between twenty and one hundred twenty recitations,[1] according to the values placed respectively upon the three items of the normal-school trinity,—subject-matter, theory, and practice. The teachers college will have settled whether these courses shall be on the college level or lower; how extensive they shall be; and of what character,—

[1] See Chapter III.

whether to give "reviews," advanced academic courses, methods courses, or some combination of these. All possible combinations are at present in force in schools for teachers, and so diverse is practice that under any one of the descriptive terms either emphasis may actually prevail. As regards any subject, all that can be said in advance is that it will involve work of one or more of the three types mentioned.

The third of these types brings into view the complicating element of this study. Courses in methods are, next to practice-teaching, the commonest recognition of the peculiar responsibility of the school for teachers; for, with the vindication of academic studies (an evolution covering roughly the period between 1865 and 1903)[1], the pressure for a distinctive treatment of subject-matter declined and thus the way was opened for a lapse into a type of treatment less consciously adapted to the characteristic pressures upon teachers.[2] Now, except in the smallest schools, whether the teacher of subject-matter will give courses in methods or not will usually depend upon whether or not he is interested in the problems of elementary-school teaching.[3] As things are, ordinarily in proportion as he is scholarly he will like to avoid such courses, for typically his preparation for his work in a teachers college has not nurtured such interest; it has had no planned bearing upon teaching any group, and least likely of all is it to have had relevance to elementary-school problems. It has for the most part been the usual preparation of a subject-matter specialist; that is to say, at best he is rather thoroughly imbued with the liberal arts ideal as it touches the field of his chief concern. And although in detail this ideal really overlaps the professional ideal throughout the greater part of its range,[4] the direction of effort of the two is fundamentally different,[5] and without some potent intervention of fresh interests or pressures the differences are likely to be much more in evidence than the common elements. Hence, it often, if not indeed usually, happens that the differences are recognized in the organization

[1] See p. 14.

[2] Arnold Tompkins, The Philosophy of Teaching, 1894, p. 84.

[3] See Lester M. Wilson, Training Schools in State Normal Schools in the United States, 1920, p. 39.

[4] See, e.g., Proceedings, N.E.A., 1872, p. 216f.; 1873, p. 190f.; 1894, p. 850f.; 1903, p. 580.

[5] See, e.g., Dean James E. Russell in The University and the Commonwealth, University of Minnesota, 1921, p. 58f.

of instruction, so that frequently methods courses are deferred to other teachers,[1]—sometimes to critic teachers, sometimes to members of the subject-matter department with less academic but more professional interest, but often to "theory" or "education" teachers.[2]

The essential point, however, is that in any event there will typically be a clear separation of methods from subject-matter courses. Subject-matter is taught first, then methods. This is the practically constant feature of the situation,[3] and implies a negative answer to the initial question;[4] namely, that in a teachers college the subject-matter teacher has only the usual responsibilities of the teacher in a liberal arts college.

Beneath the compromises that have been crystallized in this general situation lie the questions of the distinctive purposes of the professional school for teachers and the fundamental theory of its curriculum,—with which consideration of the scope of the teachers of subject-matter in teachers colleges is involved.

3. Academic Tradition versus Professional Aspiration.

It is to be noted at the outset that the answers given to these questions have always been complicated by practical concerns, and the necessity for dealing immediately with these has resulted in the establishment of temporary patterns of procedure (the compromises alluded to) which, in trial and error fashion, necessitously followed the line of least resistance and postponed facing the fundamental problem of the new institution. The low scholarship of the available recruits,[5] for example, early suggested a function of the normal school which, *a priori*, resembled that of the liberal arts school so closely as to seem to most to be identical with it. The teacher, as the representative of culture to the rising generation, must himself possess it generously.[6] The truth of this was patent. Here the college and academy

[1] The tendency was observable early: see Proceedings, N.E.A., 1887, p. 473.

[2] See Chapter III.

[3] Cf. Report of the National Council of English Teachers, English Journal VII, pp. 31–32 and Proceedings, N.E.A., 1877, p. 163f.

[4] See Chapter I, §2.

[5] Proceedings of the N.E.A., 1871, pp. 143, 153; 1872, p. 217; 1873, p. 166; 1887, p. 497; 1888, p. 504.

[6] Edward Everett, 1839. Quoted by Barnard On Normal Schools, p. 147f.

traditions of education and teaching had leeway,—traditions which had already through numerous now familiar utterances of distinguished Americans[1] been assilimated to the political theory of public education. No failure of the champions of "thorough and accurate knowledge" to perceive the inadequacy of "mere scholarship" for the work of the teacher could invalidate their plea for

> "A class of liberal minded instructors whose vocation it shall be to place the views of the most enlightened minds within the reach of a more and more extensive portion of their fellow-creatures . . .";[2]

and no promise of technique could make less vital to democracy the function which they referred to the teacher's scholarship:

> "A spirit of humanity should be breathed into him [the child] from all his studies. In teaching geography, the physical and moral condition, the wants, the advantages, the striking peculiarities, of different nations, and the relations of climate, seas, rivers, mountains, to their characters and pursuits, should be pointed out so as to awaken an interest in man wherever he dwells . . ".[3]

Here is seen the liberal arts ideal, uncomplicated by the notion of professional focusing. Implicit was the conception of the teacher's central responsibility for the conservation of significant race experience and of the school's corresponding responsibility for his scholastic equipment.

When the normal school was established, the obvious recourse to men feeling thus was academic instruction of the familiar type, whether dealing with the common branches or their upper reaches.[4] The establishment of the normal school, however, brought into relief a theoretic rivalry of knowledge and technique, and the opposing evaluations of these elements of the teacher's equipment inaugurated the central conflict in the shaping of the curriculum: namely, the struggle of "academic" *versus* "professional." For seventy-five years those who felt the teacher's need of specific or professional education seem to have been

[1] See E. P. Cubberley, Public Education in the United States, p. 57f.; and Ross Finney, The American Public School, Chapter III, e.g.

[2] William Ellery Channing, 1837. Quoted by Barnard, op. cit., p. 95.

[3] William E. Channing, 1833, Quoted by Barnard, op. cit., p. 94.

[4] Of unsuspected import for the development of the curriculum was the fact that from the beginning and at all times subsequently, the champions of knowledge were divided *a priori* over the question as to which of these was the better center for the curriculum.

profoundly influenced by a suggestive analogy between the preparation of doctors, lawyers, and divines and the preparation of teachers,—an analogy drawn by Thomas Gallaudet in 1825.

". . . What is it that has furnished us with able divines, lawyers, and physicians? The undivided consecration of the talents and efforts of intelligent and upright individuals to these professions. . . . We have our theological, law, and medical institutions in which our young men are fitted for the pursuit of these respective professions. . . . Why not make this department of human exertion [the education of teachers] a profession as well as those of divinity, law, and medicine? Why not have an institution for the training up of instructors for their sphere of labor as well as institutions to prepare young men for the duties of the divine, the lawyer, or the physician? . . . Let the same provision, then, be made for giving success to this department of effort that is so liberally made for all others. Let an institution be established in every state, for the express purpose of training up young men for the profession of instructors of youth in the common branches of an English education . . ."[1]

So frequent,[2] so confident, and so nearly identical with it in form and content are the subsequent allusions to this analogy that it is probably necessary to rate it among the documents of primary significance in the history of the education of teachers. The fact that those who relied upon it as the basic argument for a "strictly professional" normal school read into it a specific implication of exclusion of academic studies that was by no means warranted either in fact or in the language of Gallaudet only gradually came to light. It was not perceived by the advocates of the sufficiency of scholarship until the late 'seventies and the 'eighties. The trial of theories, however, began with 1839. Later recommendations of the adequacy of merely scholastic equipment might, and often did, ignore the challenge of

[1] Thomas Gallaudet, quoted by Barnard, op. cit., p. 39. See also, Connecticut Common School Journal, Vol. I, No. 8, Feb., 1839, p. 81f. It is substantially Mulcaster's argument.

[2] Forty instances of its use were counted before 1900 in the debates upon the curriculum. Seven analyses of the fallacy of the interpretation put upon Gallaudet's language appeared between 1877 and 1903 (see p. 70f. and 92), and it gradually became clear that in the preparation of teachers the materials of general education bear a different relation to professional education from that which obtains in the case of the preparation of doctors, lawyers, and divines. See Proceedings, N.E.A., 1877, E. C. Hewitt, p. 151; 1880, G. L. Osborne, and F. Louis Soldan, p. 180f; 1881, J. C. Gilchrist, p. 203; 1888, Joseph Baldwin, p. 477; 1892, N. C. Schaeffer, p. 787; and 1903, Henry M. Johnson, p. 578. With his customary clarity Henry Suzzallo stated the relationship in 1908. (See footnote, p. 29.)

"method;" but in so far as they reflected the operative factors in the educational situation they had to take account of a growing insistence upon other needs of the teacher that by many and influential persons were regarded as equally important with knowledge. If the service of scholarship was to be sustained the scholars must more sharply define the responsibility of the normal school with reference to the relation of "liberal culture" to the work of the teacher. Edward Everett in 1839 did this in terms that have lost no significance with the passing of time:

"The great mistake in monitorial instruction is that it supposes that the moment the bare knowledge of a fact in its naked form is attained, it qualifies a person to teach it to others. The teacher must know things in a masterly way, curiously, nicely, and in their reasons. . . . The teacher must see the truth under all its aspects, with its antecedents and consequents, or he can not present it in just that shape in which the young can apprehend it. He must, as he holds the diamond to the sun, turn its facets round and round till the pupil catches its luster. . . . The first object of instruction in a normal school is, as far as possible, to go over the circle of the branches required to be taught and see that the future teacher is minutely and thoroughly versed in them . . ."[1]

Even at the date of this address, however, it was necessary to recognize the place of "the art of teaching." Everett, in the same address, did it in the following words:

"The second part of instruction in a Normal School is the art of teaching. To know the matter to be taught, and to know it thoroughly, are of themselves, though essential, not all that is required. There is a peculiar art of teaching. The details of this branch are inexhaustible. . . . One thing is certain, that though there can be no difference in the average capacity of equal numbers of children in two schools in the same community, there is often a vast difference in the average scholarship after the same amount of schooling: To what can the difference be ascribed but to different degrees of skill on the part of teachers? . . . But this is a topic in which my limits do not permit me to engage . . ."

Many school men felt similar "limits," and the momentum of the liberal arts tradition carried normal school practice with it down the well-worn grooves of established school procedure. It could not have been otherwise; but the way was not smooth. A widespread and wholesome dissatisfaction with existing educational practices in the common schools had produced numerous canny analyses of "defects in our education," and the original

[1] Edward Everett, 1839, Quoted by Barnard, op. cit., p. 154. Cf. B. H. Bode, Fundamentals of Education, 1920, Chapter I.

thrust of *Intellectual Philosophy* was clearly supplemented in the 'twenties by the first fresh urge of Pestalozzianism.[1] The effects were bewildering in the extreme. The extravagant expectations entertained of the Lancasterian system and of the Infant Schools are only the most familiar illustrations of a leaven working in American education. The "confident amateur" was never more in evidence,[2] and the service of conservative leadership never more distinguished. The conclusion reached was that "method" is wholly individual; that to each there is his own effective way of teaching.[3] Tenaciously these leaders of reform held to the values of scholarship.

The increasing aggressions of "method" could force concessions and restatements, but never a retreat. After a quarter of a century Samuel Bates reaffirmed for his group the faith of Everett and indicated the dangers of the new movement:

> "It is . . . important that . . . the powers to be educated, and fit subjects to be taught . . . be carefully considered. But of even greater importance is it that the instruction be given by a liberal-minded and well-instructed teacher. It is not enough that the proper studies be assigned to the proper periods of development. It is the teacher who is to put life and vitality into the system; and the education which results will be liberal in proportion as he is liberal . . ."[4]

Utterances of similar import are abundant throughout the debates upon the content of the normal school curriculum in this period; and the less hospitable attitude that "the best and only necessary equipment of the teacher is scholarship"[5] persisted over a temporary decline in the 'eighties when the promising recrudescence of Stowe's theory[6] of the professional treatment

[1] If not earlier still by Neef.

[2] See American Institute of Instruction: 1832, Francis Gray, Introductory Discourse, p. 5; 1831, James Walker, Introductory Discourse, p. 5; 1834, Caleb Cushing, Introductory Discourse, p. 27; Hubbard Winslow, Innovations in Education, p. 170; 1838, Thomas D. James, Model Schools, p. 77; 1857, Daniel Mansfield, Some Erroneous Opinions Upon Education, pp. 23–52, *et al.*

[3] See, e.g., American Institute of Instruction: 1830, Warren Colburn, The Teaching of Arithmetic, p. 283f, and 1831, James Walker, Introductory Discourse.

[4] Proceedings of the National Teachers' Association, 1864, Samuel Bates, *Liberal Education*, p. 155f.

[5] Proceedings, N.E.A., 1873, p. 190. Quoted by President H. B. Buckham.

[6] See Chapter II.

of subject-matter gave temporarily a new turn to thought of what scholarship should mean. The easy way was, and remained, to teach formulated subject-matter as it had always been taught, —for the ends of general education.

Inevitable though it was, this solution always brought into relief the theoretic question of the distinctive function of the new institution. Granted that the teacher has a peculiar need of large and liberal culture, still it did not seem to follow indefectibly that the normal school must provide it.[1] Typically the consideration thus raised took the form of a practical problem of the tax-supported school for teachers,—namely, that of "the duplication of instruction."[2]

In the absence of a distinctive treatment of subject-matter in schools for teachers could there still be a warrant for their maintaining liberal arts courses? If the normal schools were giving, in their subject-matter courses, instruction of distinctively academic character there was clearly a "duplication of instruction." The opponents of the new institution and the advocates of a "strictly professional" curriculum for it repeatedly made the charge. On this hear Barnas Sears, Secretary of the Board of Education for Massachusetts, in 1850:

> "I see no good reason," he said, "why the State should be at the expense of giving in the normal schools so much of that kind of instruction for which ample provision is already made. . . . The normal schools, to answer their original design, must aim more at furnishing the peculiar training which teachers require and which the public schools can not give. Then the necessity for their existence will be apparent to all and no other schools . . . will complain of being forced into competition with those which enjoy state patronage. A portion of the time which is now given to teaching . . . arithmetic, geography, reading, and orthography, might be saved for those higher purposes for which more particularly the normal schools were established. . . . If there were a normal school of a higher order, persons who had already received a good literary and scientific education elsewhere might repair to it and attend exclusively to the theory and practice of teaching. An air exclusively professional would thus be given to the school and a shorter period of attendance might suffice . . ."[3]

[1] Proceedings, American Normal School Association, 1866, p. 130. Proceedings, N.T.A., 1863, p. 95. Proceedings, N.E.A., 1872, p. 189; 1873, p. 184.

[2] Cf. The Professional Preparation of Teachers for American Public Schools, p. 152.

[3] Barnard, op. cit., p. 73. See also, Proceedings, N.E.A., 1879, p. 134; 1880, p. 181.

The champions of the school studies thus faced the necessity of defense. Could that duplication be justified? Was it merely an inevitable overlapping of liberal arts with professional purposes, or was it damaging evidence of fundamental confusion of purposes and of consequent waste of effort?—and funds!

Twice at least the question brought a crisis in the affairs of the normal school;[1] and at all times it has been a factor in the shaping of normal school curricula, either on grounds of expediency, motivated by criticism and fear,[2] or on the calmer basis of a theory of the proper scope of the institution.[3]

4. Provisional Solutions.

Under such conditions defenses were evolved which, while they primarily served to support the existing practice and to sustain faith in the normal school, also foreshadowed a more fruitful theory. To President Richard Edwards of Normal, Illinois, groping for insight in the troubled 'sixties, it seemed that the value of the *esprit du corps* arising from massing in one school the students looking toward a common vocation would in itself be sufficient warrant for maintaining separate schools for them, even if it were necessary to grant the absence of the more fundamental warrant of a suffusing professional attitude, which he believed actually to be dawning.[4] With this conviction of his apparently revived the conscious tendency toward evolving a professional treatment of subject-matter. The movement was not a straight-away one, however. Striving to harmonize the rival needs of teachers, it appeared to President John Ogden that the normal school is responsible not only to the public, to provide a professional equipment for prospective work; but also to the students as individuals, to furnish them with a liberalizing education.[5] In this view were implications later developed to

[1] Massachusetts, 1840, Horace Mann, Lectures on Education, p. 257f; New York and Pennsylvania, 1876, Proceedings, N.E.A., 1877, p. 161f.

[2] Daniel Putnam, History of the Michigan State Normal School, pp. 58; 64, e.g.

[3] Connecticut, 1849, Barnard, op. cit., p. 24; New York, 1904–1905, Finnegan, Agencies Employed in Training Teachers for the Public Schools of the State, Annual Report, Volume II, 1917; Idaho, 1913, English Journal IV, p. 244.

[4] Proceedings, N.T.A., 1865, p. 277f.

[5] Proceedings, American Normal School Association, 1870, p. 8.

the detriment of the institution.[1] The kernel of truth in it is to be found in its recognition of the "narrowing tendency" of technical education, both directly and as a factor in the recruiting of students. As phrased, it could be assented to only with the substantial reservation that its validity rests upon the possibility of evolving a *culturally-satisfying professional education* for teachers. Both President George R. Beard[2] and President H. B. Buckham viewed subject-matter and method as two aspects of one growth, "essentially simple and indivisible;"[3] but their reasoning was hard to follow. To President E. C. Hewitt, the successor of Edwards at Normal, Illinois, it seemed that in any event the normal school is responsible to the public to guarantee the soundness of the scholarship of its graduates.[4] The deliberate formulation of such a position suggests a widespread view actively antithetical to it. Like the statement of Ogden, it was an outcome of the "professional" aggression upon the "academic" studies. Its strength lay in its ethical quality, which remained with the supporters of the school studies a cogent argument against a growing disposition to shift responsibility for scholarship to the public schools.[5] Its weakness lay in its susceptibility to use as a defense of unadapted or merely academic instruction,—a use not defended by Hewitt who, like Edwards, believed in the possibility of an integration. Against these views President Thomas Kirkland of Ontario, Canada, brought the analogy suggested by industrial organization,—namely the principle of efficiency by division of labor.[6]

In the presence of sharp criticism of academic work, both from within and without,[7] the obvious recourse was to focus the new institution upon "the peculiar" needs of the teacher. As first conceived these were expressed in the phrase "the science and art of teaching,"—a phrase interpreted by the majority in terms of the deposits in way of empirical method of teaching and management which accrued from successful experience;[8] by the

[1] The Professional Preparation of Teachers for American Public Schools, p. 75; and Lester Wilson, op. cit., p. 43f.

[2] Proceedings, N.E.A., 1872, p. 216.

[3] Proceedings, N.E.A., 1873, p. 190f.

[4] Proceedings, N.E.A., 1877, p. 150.

[5] President L. C. Lord, Proceedings, N.E.A., 1894, p. 850f.

[6] Proceedings, N.E.A., 1893, p. 411.

[7] Proceedings, N.E.A., 1903, p. 565.

[8] Thomas Gallaudet, Remarks on Seminaries for Teachers. Quoted by Barnard, op. cit., p. 39.

more reflective, however, interpreted in terms of a germinal inductive psychology of "the infant mind."[1] Here was a division within the ranks of the "professionals" which only experience could somewhat resolve as the need for both skill and professional intelligence became clear. For the first such formulations existed as S. R. Hall's *Lectures to Schoolmasters* (1829–33), Jacob Abbott's *The Teacher* (1830),[2] and Thomas Palmer's *The Teacher's Manual* (1839), while for the second there were only the broad suggestions of Carter, Alcott, and the "Intellectual Philosophers." The first was obviously the more open way; so driven by the conviction of the inadequacy of academic scholarship for the work of the teacher,[3] and (as they believed) supported by Gallaudet's suggestive analogy between the preparation of teachers and the preparation of doctors, lawyers, and divines, the professionals urged with all diligence the development of a "strictly professional" curriculum.[4]

To this solution, however, the slender stock of "purely professional" material was in the beginning a barrier as insurmountable as the absence of scholarship in the actual students.[5] Of necessity the experiment was tried,[6] but except in theory there was no escape from teaching the school studies diligently to students who notoriously lacked scholarship.[7] The travail of the Michigan State Normal School in the 'seventies in the attempt to become "strictly professional" is the most instructive example of which an intimate account is available.[8] Traces of its subterfuge of relegating the academic studies to the training school in order to make "the normal proper" "purely professional" appear in sundry year books still, either in the classifica-

[1] James G. Carter, Outline of an Institution for the Education of Teachers. Quoted by Barnard, op. cit., p. 75f. American Institute of Instruction: 1832, Bronson Alcott, Early Intellectual Education, p. 163; 1839, Emerson Davis, Mind and Its Developments, p. 71. J. P. Wickersham, Method of Instruction, p. 37f. E. A. Sheldon, Proceedings of the N.T.A., 1863, p. 93f.

[2] Through the courtesy of Mr. Walter Agnew I have had the pleasure of reading a transcript of the journal kept by Mary Swift, a student at Lexington during the first two years of the school. It clearly reveals the heavy use made of Abbott's book by Cyrus Peirce.

[3] James G. Carter, op. cit., p. 78f.

[4] Proceedings, N.E.A., 1876, p. 204, e.g.

[5] Proceedings, N.E.A., 1872, p. 205; 1873, p. 167.

[6] See Note 3, p. 18.

[7] Proceedings, N.E.A., 1871, p. 154.

[8] Putnam, op. cit., p. 71.

tion of studies or in the refusal of credit for any but "methods" courses in the school subjects.

5. Implicit Factors in the Conflict.

Thus at the beginning of the normal school there was a sharp division between theorists in the new institution. Two interest groups ("academic" and "professional") were aligned against each other. One group contained as its effective core those academy and college teachers who represented the best elements of the traditional American school practice,—a practice evolved in relation to the American devotion to the textbook.[1] They were on the whole a remarkably efficient and intellectually alert group, saturated both with their subject-matter and with those phases of "Intellectual Philosophy" which were most pertinent to their problems. Obviously, too, they were very familiar with the extant educational and quasi-educational literature, both native and foreign, that touched their work even remotely.[2] They had also the characteristic limitations of their specialized work and its supporting educational theory. By virtue of their location on the ladder of schools their characteristic problem was that of *knowing*.[3] The typical pressure on them was that of maintaining margins of knowledge adequate to the demands made upon them by relatively advanced and competent students. So, by the accident of their location in the service, they were, as scholars, personally preoccupied with knowledge. As professional workers their theory of teaching accepted the current exaltation of public education as "a necessity of a free people," and assimilated it to the disciplinary conception of teaching. With them, therefore, the emphasis of instruction originally fell, and continued throughout the history of the normal school to fall, upon the learner's responsibility for an aggressive attitude toward subject-matter. The value of individual effort was a corollary of the idea of individual responsibility in a democracy.

"Self-dependence is the secret," summarizes Professor Thatcher's conclusions in regard to the proper method of classical study.[4]

[1] W. C. Bagley, lectures on the Technique of Teaching.

[2] See, e.g., The American Institute of Instruction, 1830–1850.

[3] See Henry Suzzallo, Editorial Introduction to Earhart's Types of Teaching, for a most illuminating analysis, to which I am indebted here.

[4] American Institute of Instruction, 1866, pp. 39–42.

Textbooks should be constructed and methods adopted to secure this end:

"Of all subjects and books, those are best which in a proper manner tax the intellect most," said T. B. Fox.[1]

Helps of any sort take away the virtue of both teaching and study, thought Francis Wayland.[2]

"Nearly all the processes and incidents of a right education are naturally disagreeable and irksome to a child," said Daniel Mansfield, breasting the strong current of enthusiasm for 'improvements.' . . . "From the nature of the mind itself . . . discipline must be the result of individual application with but comparatively little assistance from other minds." . . . "The mere labor of instruction is but comparatively light and unimportant . . ."[3] he says elsewhere in the same address.

This theory obviously reduced the responsibilities of the teacher to a comparatively simple form. Such exposition, however, should not be taken to imply that academy and college teachers were blind to the value of technique in teaching. They had a technique of textbook instruction which they prized. It was concerned, however, largely with what is now called the technique of study.[4] That was a technique evolved for their own teaching problems, and in the main it assumed the maturity and experience of such students as they were familiar with. This group of teachers, in short, was adventitiously unfamiliar with the kinds of problems that might perplex teachers of pupils less mature and experienced than their own. They clearly undervalued the need of adapting instruction to younger children. Their diagnosis of the teacher's crucial need was made in terms of their own characteristic problems.

This attitude was no doubt a very widespread one. It was not a reasoned belief in the beginning; but was merely a common-sense generalization of the fundamental sort that, seeming to be axiomatic, is taken for granted; and which, when subjected to skeptic criticism, at first is inarticulate, and only gradually discovers in itself its vaguely felt core of validity. The holders of this belief began to be harrassed in the 'twenties, but apparently did not come into print. In the 'thirties they were only obstinately avowing the sufficiency of knowledge. At their

[1] American Institute of Instruction, 1835, p. 196.

[2] American Institute of Instruction, 1830, p. 19.

[3] American Institute of Instruction, 1858, pp. 28–45.

[4] See Jacob Abbott's Introduction to Abercrombie's *Inquiry Concerning the Intellectual Powers*, 1833, for a fine example. C. F. Whipple, 1916.

opposition, shadowy or substantial, S. R. Hall leveled the arguments of Gallaudet and Carter:

"Shall I be told?" he asked, with the scorn of one who often has been told but remains unconvinced—"Shall I be told that all that is needed to qualify a teacher is to make him familiar with those branches of science which he is expected to teach? . . . Just as well might every youth who has had the honors of college lay claim to the confidence of the community in his skill as a physician or surgeon while he still has nothing but the knowledge which entitles him to his degree . . ."[1]

Typical of the rejoinders is the following:

"If a person is to tell a thing he must know it first," averred President Hopkins of Williams. "Generally when a person knows a thing he can tell it . . ."[2]

The other group was not less liberally educated than the one just described, but its central interest was different. It contained the more devoted students of Intellectual Philosophy (in which apparently was the nourishing fountain of the professional spirit in America);[3] it held the reformers or "innovators." They were primarily interested in "the improvement of education." They were not generally critics of academy and college teaching. One of the ablest of them, indeed, expressly stated in 1839 that instruction in the higher studies was for the most part satisfactorily done.[4] They were primarily critics of the quality of elementary-school teaching: "The defects of the present system lie chiefly in the management of the initiatory stages," thought Palmer.[5] What they saw was the gap between typical perform-

[1] American Institute of Instruction, 1833, p. 257f.

[2] American Institute of Instruction, 1869, p. 74. Cf. J. W. Barker, Proceedings, N.E.A., 1880, p. 190.

[3] Note the recurrence of the names of Reid, Brown, Stewart, and later Hamilton, in the volumes of the American Institute of Instruction, 1830 to 1865, and see especially the work of A. R. Baker, 1833, p. 263f.; Hubbard Winslow, 1834, p. 169f.; Jarvis Gregg, 1835, p. 113f.; and Thomas Palmer, 1838, p. 212. The educational literature produced in the pre-normal-school period is replete with allusions to Intellectual Philosophy and declarations of its value for the teacher. It was "adapted" to teachers' needs in the early seminaries, Hall's at Andover, 1836, e.g.; and American textbooks by Wayland, Winslow, and Parkhurst, following the Scotch "common sense" school, responded to the American intensified interest in "the improvement of education" by specific suggestions for the teacher. These were used in the early normal schools—e.g., Albany (1844), Ypsilanti (1853).

[4] Thomas Palmer, The Teacher's Manual, 1839, p. 49.

[5] American Institute of Instruction, 1838, p. 215f.

ance and possible achievement in the education of elementary pupils. To them by virtue of their central interest, not the possession of knowledge but the attainment of art in the teaching of young pupils was the crucial need of teachers. Throughout half a century they continued to see with the distressful clearness of James Carter (1825), the scholar's failure to adapt instruction to the capacities of children:

"Though a teacher can not communicate more knowledge than he possesses, yet he may possess much and still be able to impart but little. . . . One great object in the education of teachers . . . is to establish an intelligible language of communication between the instructor and his pupils, and enable the former to open his head and heart and infuse into the other some of the thoughts and feelings that lie hid there. *Instructors and pupils do not understand each other.* They do not speak the same language. . . . We must either by some magic or supernatural power bring children to comprehend at once all our abstract and difficult terms or our teachers to unlearn themselves and come down to the comprehension of children. . . . When instructors understand the philosophy of the infant mind, what powers are earliest developed and what studies are best adapted to their development, . . . the minds of teachers [will be] prepared to act upon those of their pupils to the greatest advantage . . ."[1]

The peculiar function of the normal school, then, Carter concluded, was to bridge the gap between the teacher's knowledge, maturity, experience, and the relative ignorance, immaturity, and inexperience of the pupil. The means was—a Baconian inductive study of the child mind, which would furnish a guiding science to be taught to prospective teachers:

"By a particular induction, or a long series of discriminating observations, the infant mind may be so far analyzed and its phenomena classed as to enable us not only to define accurately its several powers with their mutual connections and dependences, but to fix with precision the natural order of their development and to adapt to them such exercises as will develop them most successfully. . . . When subjects are selected, perhaps judiciously, they are presented in a form which neither affords a salutary discipline to the mind nor facilities for the acquisition of knowledge. They are all too abstract or are generalizations of facts which are themselves unknown to the pupils . . ."[2]

In these excerpts from Carter is stated the effective nisus of the normal school movement. Thus was opened a vista for

[1] James G. Carter, 1825. Quoted by Barnard, op. cit., p. 75.

[2] United States Literary Gazette, 1825. Quoted by Carter in the American Institute of Instruction, 1830, p. 66.

"mental philosophy" and a frontier discovered to the educationists,—an alluring field for "improvements in education." Throughout half a century following Carter's diagnosis of need, a series of notable teachers found in the condition he indicated, evidence of the inadequacy of mere scholarship, a constant stimulus to the professional spirit, and a convincing argument for something beyond academic scholarship in the teacher's equipment. Bronson Alcott was among the earliest of the "reformers" either to follow Carter's clue or independently to observe the same condition. Though going beyond Carter in diagnosis, he arrived at the same conclusion, and the similarity of the phrasing suggests a direct connection between the two:

"The reluctance of children to mental application is so common a complaint that it should incite inquiry as to its causes. May it not originate in the conditions under which juvenile study is conducted? . . . The instruction . . . is unsuited to his [the child's] immediate wants [i.e., "needs"], and he can not appreciate its prospective value. . . . It is often presented in forms which incline him to dislike acquisition and associate uselessness with knowledge. . . . The preceding remarks, if founded on just views of the nature and means of education, establish the inadequacy of existing methods . . . [and] . . . the importance of studying man as the true means of attaining principles . . ."[1]

Thomas Palmer, an inveterate borrower and, by reason of his interest in elementary education, a vigorous defender of the "purely professional" preparation of teachers, clearly followed Carter in 1839:

"Teachers must make themselves acquainted with the extent of their [children's] vocabularies. For the want of this knowledge the most serious, yet ridiculous, blunders are committed . . ."[2]

Thirty years later, perhaps following Alcott, W. P. Atkinson returned to the theme:

"I think it must have struck many teachers as strange that in the early years of childhood, before school discipline comes into operation, there is an intense and easily awakened curiosity in children . . ."

It disappears, he avers, and goes on, almost in the language of Alcott, to explain why.[3] John Bascom, at about the same date, spoke to the same point:

[1] American Institute of Instruction, 1832, p. 133.
[2] Thomas Palmer, The Teacher's Manual, p. 28.
[3] American Institute of Instruction, 1865, p. 217.

"To the surprise of the thoughtful mind, it is found more difficult to get enthusiasm in advanced scholars than in children. This would seem to indicate something wrong with our methods. A healthy movement of knowledge should of itself beget momentum. . . . But the opposite seems to be true . . ."[1]

"The natural condition of the child is one of inquiry . . .," pointed out Walter Smith. . . . "How comes it that the school is not perfect happiness to children? . . ."[2]

It was in response to such observed conditions as these that the "professional" movement arose; and in their continuance lay the substantial warrant for the growing insistence upon "the science and art of teaching,"—or on the other hand, for vigorous opposition to the assumption that assuring scholarship solved the problem of the teacher.

The theory of the teacher's need implied by this view of the problem was obviously more complex than that of the other interest-group. It required the teacher to be a student of children, an analyst of the learning process. In defining the teacher's needs it added to scholarship the "science and art of teaching," "the rarest and best of his qualifications."[3] In the beginning, at least, it implied no less of the former. Scholarship was always the *sine qua non*. The pre-normal school devotees of "mental philosophy" had no doubt about the matter. Carter's statement fairly illustrates the original attitude. It was an attitude rather consistently held throughout the history of the normal school. In the presence of the scholars' skepticism of the value of method, indeed, pains were taken to state the necessity of generous knowledge:

"It is universally admitted," said Emerson Davis in 1839, "that those who teach must understand the branches of learning in which they purpose to instruct; and since the object of teaching is not solely to impart information but to cultivate the mind and prepare it to acquire knowledge without the assistance of teachers, it follows that those who would teach successfully must know something respecting the human mind and the best way of developing its various faculties . . ."[4]

The difficulty of harmonizing the two concerns in one institution remained to be discovered,—and with it eventually, trial of the device of banishing academic work from the normal school.

[1] American Institute of Instruction, 1868, p. 174.

[2] American Institute of Instruction, 1873, p. 129.

[3] Memorial of the American Institute of Instruction to the Massachusetts Legislature, 1837, Barnard, op. cit., p. 87.

[4] American Institute of Instruction, 1839, p. 61.

When the normal school was established both interest-groups were represented in its leadership. Cyrus Peirce of Lexington obviously reflected the professional aspiration. His letter to Barnard in 1842[1] suggests that half of each period was given to discussion of methods of teaching.[2] Nicholas Tillinghast of Bridgewater as clearly reflects the other group:

"I have no especial belief in teaching others methods of teaching . . .," he says. "It seems to me that each well-instructed mind will arrive at a method of imparting better for *it* than any other method . . ."[3]

In this attitude, which was the dominant one, he followed the formulation of the opponents of the Massachusetts normal schools in 1840:

"Every person who has himself undergone a course of instruction must by that very process have acquired the art of instructing others."[4]

Tillinghast was followed by Marshal Conant, who apparently had the professional spirit of Peirce:

"In respect to didactics," he said in 1855, "it has appeared to me that they must be given more or less at every lesson, and in connection with the subject in hand . . ."[5]

President J. W. Dickinson of the Westfield normal school,

"cared less for methods than for a thorough understanding, on the part of the teachers, of the true principles of teaching."[6]

His exposition of his procedure suggests a thoroughly academic organization;[7] and so the account might go forward to date: always a division of leaders.

The significant thing is that these were men who had the power to make their opinions effective in practice, and that the diverse beliefs which these excerpts document continued to operate freely throughout the history of the normal school. No difficulty would be encountered in collecting statements of similar

[1] Connecticut Common School Journal, Vol. III, p. 142f.

[2] His diary, a transcript of which by the courtesy of Mr. Walter Agnew I have had the pleasure of reading, only enables me to say that he had the professional spirit.

[3] Quoted by Barnard, op. cit., p. 65.

[4] Horace Mann, Lectures on Education, 1840, p. 257.

[5] Quoted by A. G. Boyden, History of the Bridgewater Normal School, 1876, p. 83.

[6] American Institute of Instruction, 1862, p. XIX of the Journal.

[7] Proceedings of the A.N.S.A., 1870, p. 73.

import and positiveness from the normal-school leaders in every lustrum of the institution's history down to the present time.[1]

6. The Working Compromise.

In such a situation, what could be done? The new institution, being established, had to be operated,—by teachers with such preparation as was then available and with such materials and ideals as were then at hand. The substantially identical school-education of the leaders was one factor in reducing the differences implied for practice in their different outlooks. As for the materials, ideals, and technique, in the beginning these were very heavily those of the usual general education of the time,—to be modified gradually as they could be, in the light of experience and under impulsion of the abiding conviction entertained by the educationists that academic scholarship alone is inadequate for the work of the teacher. An exigential working compromise was effected. Practice settled discontentedly into the traditional patterns. Gradually use and wont somewhat blunted both the educationists' irritation over non-professional studies and the taxpayers' criticism of duplication. The vindication of subject-matter, accomplished between 1865 and 1903, opened the way to "a generous development of academic work."[2] It proceeded apace. Side by side, or end to end, stood "academic" and "professional" studies.[3] Eventually, as other professional schools faced from taxpayers (and rival institutions) the charge of duplication of effort, the existing practice was justified on a basis that supported the traditional dualism of academic and professional. Schools of agriculture and engineering drew a distinction between "major" and "service lines" of instruction. Such schools, for example, maintain courses in English, history, literature, economics, and the like, while focusing their curricula upon "major lines" representing the characteristic pressures of the respective occupations,—their

[1] See, e.g., Proceedings of the National Teachers' Association, 1863, p. 95; American Normal School Association, 1866, p. 130; National Education Association, 1872, pp. 189; 191; 198; 1873, pp. 183; 190f.; 1876, p. 203; 1877, pp. 141; 156; 163; 1880, p. 181; 1881, pp. 202; 209; 213; 1886, pp. 396; 1887, pp. 478; 482; 487; 498; 1888, pp. 468; 475; 477; 483; 505; 1889, p. 583; 1893, pp. 411; 426; 1894, p. 850; 1895, pp. 712; 714; 1903, pp. 543; 546; 1905, pp. 525; 539f.; 1907, p. 633; 1910, p. 566, etc.

[2] John W. Cook, Proceedings, N.E.A., 1907, p. 633.

[3] See W. C. Bagley, Proceedings, N.E.A., 1918, pp. 229–234.

professional concerns. The "service lines" were justified in terms either of a supplementary function or of the relation of general culture to professional success. Applied to schools for teachers the distinction as commonly drawn labeled the academic studies as "service lines," and the courses in psychology, methods, principles, and practice as "major lines."[1] Such a procedure would obviously only express in new terms the old ideal,—of a normal school curriculum in which the school studies were included "merely as illustrative."[2] It would, however, at the same time permit advanced academic courses, on the ground of the teacher's need of culture. This was grudgingly admitted in the 'eighties to be "theoretically defensible."[3] But the argument was never closed; it merely subsided; hostilities became sporadic, with, however, from 1865 forward a fruitful undercurrent of experiment and reflection over the unsettled problem of the *professional* possibilities of *academic* studies.

Summary though it is, this sketch isolates the major operative factors in the development of professional curricula for teachers and permits the analysis to return to the fundamental problem of the study: Should instruction in subject-matter in a teachers college be differentiated from that given in the same field in schools of general education? In other words, does the responsibility of the teacher of teachers in a given subject differ essentially from that of a teacher of the same subject in a liberal arts college?

II. Implications of the Problem

1. The Liberal Arts Ideal.

The import of the key question thus propounded can be made clear through a summary of the characteristic responsibilities of the teacher in a higher school of general education. In such a school the competent teacher will in general reflect in his work the various aspects of the liberal arts ideal,—a complex of the elements of a "liberalizing education."[4] He will possess such scholarship and (it may be assumed) such deftness at teaching

[1] For a sounder view see Henry Suzzallo, The Professional Use of the History of Education, 1908, p. 45 in the Teachers' College reprint.

[2] Proceedings, A.N.S.A., 1870, p. 8; 1872, p. 198.

[3] Proceedings, N.E.A., 1889, p. 563.

[4] See, e.g., Newman, Idea of a University, especially pp. 99–179.

as will amply ensure his students' mastery of certain standard knowledge in its relationships, together with the usual skills of the subject. This, however, will be to him too low a minimum expectation. Being a scholar he will conceive his responsibility more liberally. He will feel it a part of his function to transmit also the subtle criteria and standards of his subject;[1] certain "measures" whereby the values of achievement in his field are evaluated; a "sense of the nature of evidence,"[2] perhaps, and a feeling for fruitful procedure,—the "method" of his field of scholarship;[3] a group of intellectual and technical appreciations, which in due degree serve also as standards by which the learner's success as a student of the subject is estimated. Probably he will go beyond this, expecting his students to realize a modicum at least of the more precious outcomes of intellectual poise or balance as students of the subject, the indefinable deposits of experience that are known as attitudes.[4]

These are some at least of the elements of the liberal arts ideal. In detail, in emphasis, they vary with the field of concern. The point is simply that achievements of this order are attainable, are attained by scholarly teachers *interested in transmitting such elements of culture;* and that they represent a more or less generally accepted outline of the characteristic responsibilities of college teachers.

The question, then, is whether goals such as these satisfactorily define the responsibilities of subject-matter instructors in *teachers* colleges. It is a question of vital import to these schools; for upon the answer accepted not only depends directly the character of the organization of instruction, but also by implication the more significant phases of faculty organization and certain important details of the administration of practice.[5] An affirmative answer indicates one set of provisions for meeting such generally acknowledged needs of teachers as scholarship, technique, and professional intelligence. A negative answer indicates another

[1] Henry Johnson, Proceedings, N.E.A., 1903, p. 578f.

[2] See, e.g., Montaigne, Education of Children, p. 48f.

[3] William Parsons, Proceedings, N.E.A., 1887, p. 505; 1903, p. 549. Considering how clearly the schoolmen of the thirteenth century had distinguished the "method of the subject," it is rather strange to find how little hold this element of liberal education has apparently had in academic instruction.

[4] W. C. Bagley, Educational Values, Chapters IV and XI.

[5] See, e.g., Lester M. Wilson, op. cit., Chapter IV.

and radically different set of provisions. Both answers and the major possible variations of them have been given in the past. The affirmative answer is amply represented in present practice;[1] the negative, apparently only sporadically.[2]

An affirmative answer may be made from three significantly different angles: (*a*) one, a frank and unqualified acceptance of the liberal arts objectives for subject-matter teachers,—a position supported by an organization of instruction exemplifying the attitude; (*b*) another, also ostensibly an unqualified acceptance of liberal arts purposes for the school studies, but in effect considerably modified by practices tantamount to an in-service professional education for the subject-matter teachers; (*c*) the third, a position differing from the preceding mainly in its centralizing emphasis upon the "strictly professional" studies as embodying the distinctive service of the institution. Each of these must be considered.

2. The "Academic Normal School."

The first accepts for the subject-matter courses the goal of the liberal arts or academic ideal,—or such approximations to it as the ordinarily heavy teaching program admits of,—and implies that the subject-matter teacher in a teachers college needs no professional preparation. This view may prevail whether the school assumes that the best preparation of the teacher is an intensive study of the elementary materials or an extension of the prospective teacher's scholarship to the "higher" studies, or both. The early Massachusetts schools in their "full course"[3] held in reserve the higher studies for those who remained long enough to complete the lower. Mr. Gordy concludes that essentially their work was devoted to the lower studies,[4] and William T. Harris, looking back in the 'eighties over the work of the normal school in the attempt to justify faith in the value of the

[1] See, e.g., Colorado State Teachers College, Bulletin, Series XX, No. 5, pp. 53–58, and Bulletin Number Fourteen of the Carnegie Foundation, pp. 151, 229.

[2] See Chapter III.

[3] Cyrus Peirce, Connecticut Common School Journal, 1842, Vol. III, p. 142.

[4] J. P. Gordy, The Rise and Growth of the Normal School Idea in the United States, U. S. Bureau of Education, Circular of Information No. 8, 1891, pp. 121; 130. For the opposite report of the work of the early normal schools see P. A. Siljestrom, Educational Institutions in the United States, London, 1853, p. 164f.

restudy of the school branches, appears essentially to agree with him.[1] Nicholas Tillinghast, however, was clearly an adherent to the belief that the best preparation for teaching the elementary subjects is the study of the higher branches:

"Those studies should be pursued that will lay a *foundation* on which to build an education. I mean, for example, that algebra should be thoroughly studied as the foundation for arithmetic; that geometry and trigonometry should be studied, by which, with algebra, to study natural philosophy, etc. . . ."[2]

The tendency after the 'seventies appears to have been in the second direction:

"If one looks in upon a normal school he will hardly be aware, unless informed, that it is anything but a first, second, or third rate academy. The branches taught are about the same and the mode of teaching is scarcely different," said John Ogden. . . . "The objects and aims of the normal school should be so high and its course of study and practice so complete as not only to meet the increasing public demand for a higher order of teaching ability, but to satisfy the highest ambition of the student, in a literary point of view. . . . Our great trouble hitherto has been that teaching does not offer inducements enough for a high degree of literary culture . . ."[3]

"The normal schools have been excellent free seminaries," said Delia Lathrop in 1873. "Beyond this there has been little especially distinctive in them, save perhaps the reading somewhere in the course, of an author upon school-management and the occasional conduct by the pupils of some of the recitations of the school. The leading idea has been to give their pupils the necessary complement of facts. When this has been done they have been graduated with honors . . ."[4]

"Many of our normal schools," said President C. C. Rounds, in 1877, "are, as at present organized, mainly academic. However the professional spirit may animate the academic work, the strictly professional constitutes but a small part of the study of the course, and is postponed to the last."[5]

". . . As the normal school is but a secondary school, it cannot compete with the university in its work," said T. W. Bicknell in 1884.[6]

"As a class," declared T. C. H. Vance in 1881, "normal schools are doing little more than academies and colleges of the same grade. You can not say that the instruction given in normal schools in language, mathematics, history, etc., is superior to that given in colleges. . . . The courses are almost identical. . . . Wherein do they differ?"[7]

[1] Proceedings of the N.E.A., 1889, p. 397f.
[2] Barnard, op. cit., p. 66.
[3] Proceedings of the A.N.S.A., 1870, p. 8.
[4] Proceedings, N.E.A., 1873, p. 181.
[5] Proceedings, N.E.A., 1877, p. 163.
[6] Proceedings, N.E.A , 1884, p. 64.
[7] Proceedings, N.E.A., 1881, p. 209f.

"Their [i.e., the normal schools'] academic work is mainly of the secondary or high school type," concluded W. H. Payne, "and their technical training is mainly in method and in the elements of psychology . . ."[1]

"They [the normal schools] are academies or high schools with a slight infusion of pedagogic instruction," concluded President Butler in 1888.[2]

"State normal schools are excellent high schools and a little more," said Colonel Parker in 1888.[3]

". . . No academic work done in the normal school in the shape of a review of elementary branches is an equivalent of the enriching and enlarging training of advanced scholastic courses, collegiate in scope, spirit, and method . . .," said F. B. Brandt in 1903, arguing for still more advanced academic courses.[4]

In the last citation appears a division within the ranks of the supporters of subject-matter which in later years, with the development of credit relations between normal school and university, definitely operated against the repute of the common-school studies,—the more heavily because the idea of a professional treatment of them was so little current.

Between 1895 and 1905 it is clear that academic work was steadily expanding in the normal schools. An unpublished master's thesis at Teachers College for 1907 upon *Tendencies in Academic Studies in State Normal Schools*[5] presents a series of tables showing in paired figures for the extremes of the decade the average length in weeks of the courses in all the large groups of studies in fifty well distributed normal schools. In the English group only reading, voice culture, and penmanship declined. Grammar gained slightly, rhetoric 28%, English literature nearly 50%, literary criticism 50%, American literature 10%. In the social sciences only English history and sociology declined. United States history gained 10%, general history 15%, medieval history 150%, modern European history 30%. In science only nature study declined. The outstanding gains were in agriculture, physical geography, botany, advanced physics and advanced chemistry. In mathematics only arithmetic and solid geometry declined,—the former 25%. Plane geometry and trigonometry held their own; calculus increased over 100% and surveying 30%.

For the same period W. C. Ruediger, studying the professional courses, found that in the two year curricula about 20% of the

[1] W. H. Payne, op. cit., p. 56f.
[2] Quoted by Gordy, op. cit., p. 105.
[3] Quoted by Gordy, op. cit., p. 105.
[4] Proceedings, N.E.A., 1903, p. 543.
[5] Joseph Marr Gwynn.

eighty schools examined devoted approximately half the two year curriculum to "professional studies." It varies from 60 to 187 week hours out of a possible 320, he says. Psychology declined 20%, History of Education 10%, school management slightly increased, methods slightly decreased, and practice teaching slightly increased.[1]

The tendency, then, is clear. The peculiar dangers involved need to be emphasized.

a. Weaknesses of This Type of Organization

In electing to give to its subject-matter courses the characteristic academic treatment, the school for teachers commits itself to the traditional separation of methods from subject matter, and thereby abandons at the outset the opportunity for a close-knit curriculum. The resulting organization of instruction embodies in all the fundamental activities of the school the subtle implications of this "dualism."[2] It is typically two schools, with rival purposes;[3] two institutions set side by side,—the bond between them mainly their common students looking toward a common vocation. The annual announcements frequently, though very incompletely, reflect the disunion thus ensured. The courses given, or "offered," are classified as "academic" and "professional." The overt division of the school into "academic" and "normal" departments may still be found,—a vestige of the original conception of an "exclu-

[1] W. C. Ruediger, Education 27:174–179.

[2] John Dewey, Democracy and Education, Chapter XIII. And Proceedings, N.E.A., 1890, p. 743.

[3] Proceedings, N.E.A., 1886, p. 397; p. 401. Bulletin Number Fourteen, The Professional Preparation of Teachers for American Public Schools, pp. 149f., especially p. 168. Next to this analysis, much the most incisive arraignment of the dualistic organization of normal schools is that of the leaders of the "reform of 1920" in France, which is set forth crisply in recent volumes of the Revue Pédagogique. Consider the following excerpt: "Depuis 1905, une École normale est un établissement qui manque d'unité, ou deux cultures, la générale et la professionelle, se juxtaposent sans se penetrer. . . . Il semble que deux établissements distincts d'education aient été, par hasard reunis dans même local, et . . . l'élève qui va de a'lun a autre aborderait absolutement en étranger un nouveau cycle d'etudes qui n'a aucun lien avec celui qu'il a parcourt pendant la premiere partie de sa scolarite. . . ." Rapport du Directeur de l'École normale de Bouzarea. Revue Pédagogique, March, 1920, Vol. 76, p. 205. For proposals similar to those of Bulletin Number Fourteen see Revue Pédagogique, November—December, Vol. 77, pp. 355–59.

sively professional" education for teachers. Beneath these surface signs of discommunity of effort lie the ramifying effects of uncoördinated activities. A dichotomy of the faculty, corresponding to the foci "academic" and "professional," is the most conspicuous evidence of the inner disunity to which the initial choice commits the school.[1] It will ordinarily be tempered by the power or skill of the president and the friendly forces of colleagueship, into something less baneful than mutual disrespect between the two groups of teachers; but the conditions of genuine cooperation will be inherently wanting. There will be an inevitable isolation of the two groups,—for the subtly pervasive tendency of academic work is to foster the *scholar's* purpose of extending margins of control rather than the *professional* design of capitalizing scholarship for the social purposes of public education. This element of the problem of educating teachers was somewhat more than implicit in the genesis of the normal school. The inadequacy of the original American institution for preparing teachers inhered in this tendency. Hear Thomas Palmer's arraignment of the Teachers' Seminaries in 1839:

"The proper object of these institutions, it is to be feared, has been too largely lost sight of. The plan has commonly been to extend the knowledge of the students to the higher branches of learning rather than to instruct them in the art of teaching,—more especially the art of teaching the elements of school learning. . . . [These schools] are not merely or largely for mathematics, science, and dead and living languages. Leave these to academies and colleges. . . . What is wanted is an institution in which teachers shall . . . acquire the art of teaching . . ."[2]

The difficulty remained:

". . . The mixing of general with special instruction, as in many of our normal schools," declared President Phelps, "leads to an almost utter abandonment of the latter, or to a merely nominal attention to its great claims; and it is not unfrequently the case that such a school degenerates into a second or third rate academical affair."[3]

"We are generally agreed that the normal school should not give training of merely academic quality," said President Parr, "but the facts which confront us overturn our theory and make such work its leading feature . . ."[4]

"More than once," said Professor Payne, "I have tried to reconcile myself to the contention sometimes made, that geometry in a high school and

[1] Bulletin of the Colorado State Teachers College, Series XX, Number 5 of the Educational Survey, pp. 19; 51–61; 70–75, etc.

[2] Thomas Palmer, op. cit., p. 100.

[3] Proceedings, A.N.S.A., 1866, p. 130f.

[4] Proceedings, N.E.A., 1888, p. 468f.

geometry in a normal school should be taught by methods essentially different . . ."[1]

The difficulty inheres in a subtly disorganizing antithesis of concerns between "academic" and "professional." Whatever their native predilections may be, the initial tendency of scholarly teachers of subject-matter is indubitably academic. Unconsciously they assume that the proper goal of all the students coming before them is the same kind and amount of knowledge, standards, technique, attitudes, outlooks, interests, as they themselves possess. It has always been so. Nearly always implicit in the scholar's teaching, this assumption is sometimes made explicit. The function of the liberal arts teacher of English was thus expressed by Asa Rand in 1832:

"He is to take a pupil, as young as may be proper, and impart to him *his own knowledge* of grammar."[2]

"In general," protested W. C. Collar in 1868, "no attempt is made to discriminate between such knowledge as a boy should possess at the outset of his course and *such as is proper only for a mature scholar*."[3]

"There may be merit in what is now called the natural method of teaching a language," explained J. L. Lincoln in 1879, "but that merit does not come from doing away with grammatical study in teaching it. That may be the way a child learns the vernacular, but it is not the way people, and larger children, learn a foreign tongue, and *especially gain a scholar's knowledge of it*."[4]

W. H. Payne, puzzling over the relation of academic and professional instruction, perceived the difficulty thus in 1903:

"A normal school should teach chemistry," he admitted; "but it is not its function to educate chemists. It should teach language, but it should not aim to produce linguists or philologists. The unwisdom of this specializing process is seen when each of half a dozen instructors attempts to *make specialists out of the same pupil*."[5]

This persistent tendency forms a major problem of teachers colleges everywhere. As shown above, it has long been more or less vaguely felt:

"Not every scholar is also an instructor," said R. G. Boone. . . . "It seems as if it ought not to need saying that no amount of general culture will

[1] W. H. Payne, Proceedings, N.E.A., 1902, p. 206.
[2] American Institute of Instruction, 1832, p. 173. My italics.
[3] American Institute of Instruction, 1868, p. 143. My italics.
[4] American Institute of Instruction, 1879, p. 130f. My italics.
[5] Proceedings, N.E.A., 1902, p. 205f. My italics.

of itself give this insight, any more than the traditional liberal education makes one an author or editor . . ."[1]

In a recent address dealing with the subtler phases of professional education in a university Dean James E. Russell brings clearly to view the difficulties inherent in the disparate attitudes connoted by the terms "academic" and "professional." The close-knit character of the exposition makes it difficult to represent fairly in brief quotations the quality of the treatment, but the following must serve:

"From the standpoint of the professional school, the interlacing of academic and vocational courses has two serious consequences. First, it tends to shorten the period set apart for professional training, and in the second place it introduces into the professional school academic standards and methods of instruction wholly foreign to the professional spirit . . .

"We have departments and subjects of study and semesters and credits—all according to the strict letter of the academic law. And yet we know that a department in the academic sense exists for the development—not to say illimitable expansion—of a subject, even to the bankruptcy of the institutional purse. A professional school has no need of departments except for administrative convenience . . .

"The material of instruction in a professional school can not be measured by academic standards. The needs of the practitioner in his practice are the sole standards for determining what he should be taught . . ."[2]

The problem is rendered the more intractable by the fact that thus far there has been for the subject-matter teacher, little but academic training,[3] and for the teacher of "education" only an unintegrated preparation, in which often, by reason of the scholars' ingrained and dominating hostility to "pedagogy," the special training of the educationist has been colored by a defensive attitude inevitably tending to exaggerate the gap between the two. Indulged by acceptance, this opposition remains a subtle source of dissension varying in outcomes with the general health of the institution. At worst it could mean, for example, that the appreciative emphases of liberal arts courses are largely negatived by the critical tendencies of, say, courses in "modern educational theory" or "educational values." The net result to the students under such conditions might be largely an initial bewilderment and unsettlement; and to the

[1] Proceedings, N.E.A., 1894, p. 861.

[2] The University and the Commonwealth, University of Minnesota, 1921, pp. 53f.

[3] The waste of this was early recognized and clearly stated by Samuel Bates, Proceedings, N.T.A., 1864, p. 155f.

school which did this to them in way of "preparation," it might finally bring, if not the resentment of its alumni, only such superior regard as sound children, later disciplined by experience, come to have for well-meaning but erratic parents. The persistence of the division today reflects a gross situation characterized by failure to consolidate for the profession the considerable but sporadic net gains of the "professional" idea, which from 1865 forward were clearly in the direction of an integration of subject-matter and method. The exposition of that tendency is the theme of the next section of this study.

Facts of the order of those brought forward have always entered into the practice of divorcing "methods" from subject-matter. In a sense the common dual organization of schools for teachers may be described as an administrative concession to the unprofessional education of subject-matter teachers, on one hand, and to the too narrow preparation of the teachers of "purely professional" studies, on the other hand. It will be fruitful, however, to regard it as also an evidence of the administrators' lack of sufficiently clear professional purposes and of a self-consistent theory of teacher-preparation. For these they could properly be charged with responsibility even if the available resources for meeting the situation were less than they are.[1] In the absence of such purposes and theory a compromise solution must be adopted, which inevitably divides the effort of the school. The administrative problems thus created are distracting and absorb attention needed to work out a close-knit organization of instruction. The practical antithesis between liberal arts ideals, courses, and teachers, and professional ideals, courses, and teachers implies clearly a need for administrative checks and balances. Aside from the consequent deflection of energy from fundamental concerns, the situation is objectionable because it throws upon the president of the school too heavy a responsibility. Whether reflective, or casual and adventitious, *his philosophy or convictions, not the professional responsibilities of the institution,* must then determine the character of the school.

If he lean liberal-arts-ward, the school may become in quality a liberal arts college with what President John W. Cook called "a pedagogical annex."[2] That is to say, the objectives of sound

[1] See p. 44f. and Chapter III.

[2] Proceedings, N.E.A., 1907, p. 633f.; and Arnold Tompkins, The Philosophy of Teaching, 1894, p. 84.

general education are accepted both for the usual academic studies and for the courses in psychology, education, and the like. They are mastered for culture's sake or as ends in themselves,[1] exemplifying the statement that

> ". . . the strictly professional studies . . . may be pursued in an academic spirit and thus be made to yield the fruits of scholarship . . ."[2]

In schools of this type the scholar's assumption (made explicit as early as 1840)[3] that method is merely a by-product of good teaching and not an outcome to be sought more directly and consciously, may be capitalized for much of what it is worth,—which is a very great deal,[4]—and later practice-teaching under the supervision of master teachers may go far to provide for certain conscious refinements of technique with reference to age and grade levels.

Such a school can be really organized, however, because of its essential singleness of purpose. Without a suffusing professional spirit, it may still supply its graduates with an invaluable equipment,—reaching, in its class work, as far as the liberal arts and the professional purposes overlap. Since the identity of the two is far from complete, its class work will necessarily do for its students less than might be done. The region of its insufficiency will be that designated by the peculiar field of the professional purpose,—the conscious adaptation of instruction to the characteristic responsibilities of public-school teachers and to the typical pressures of their occupation on them. Toward this, however, its training school may take a significant step. The common lack of differentiated curricula in such schools, however, and, even where they exist, the frequent lack of correlation between the curriculum pursued and the position later taken by the student,[5] often bring it about that in spite of their excellent class-experience and their training-school observation of really model teaching, its graduates having had scholarly courses attempt in turn to give scholarly courses to elementary-school pupils—as the graduates of liberal arts colleges do to high-school

[1] Proceedings, N.E.A., 1887, p. 501.
[2] Proceedings, N.E.A., 1903, p. 580.
[3] Horace Mann, op. cit., p. 257.
[4] Proceedings, N.E.A., 1905, p. 512f.
[5] C. E. Benson, *The Output of Professional Schools for Teachers*, 1922, Chapter V.

children.[1] In so far as this happens such schools contribute data for the argument in favor of the development of prescriptive supervision in the public schools, and fall far short of the function of professional education.

So much of the discussion may be summarized by saying that while teachers colleges of the liberal arts type recognize and provide for the undoubted values of wide and comfortable margins of knowledge, they do not sufficiently recognize or provide for closely relevant scholarship and the attitudes that give most promise of capitalizing scholarship for the social purposes of public education. The complaint of them is not that they place too much emphasis upon knowledge, but that they are not sufficiently regardful of the peculiar responsibilities that rest upon the public school teacher in view of the social purposes of education,—in a word, that they are not consciously professional, and that, in so far, they inevitably neglect peculiar needs for which they are properly responsible. On this an early pronouncement of Mr. Dewey's bears convincingly:

"The only way in which the divorce [of scholarship from method] can be broken down is by so presenting all subject-matter, for whatever ultimate practical or professional purpose, that it shall be apprehended as an objective illustration of methods of mind in its search for and transactions with the truth of things. Upon the more practical side, this principle requires that, so far as students appropriate new subject-matter (thereby improving their own scholarship and realizing more consciously the nature of method), they should finally proceed to organize this same subject-matter with reference to its use in teaching others."[2]

3. Transitional Type of Organization.

A teachers college may, however, ostensibly accept for its class work the goals of sound general education; may select its teachers primarily with reference to scholarship (and, of course, personality); and may yet through the genius of its president invest the school with a professional spirit which ensures cumulative growth in the technique of teaching and a widening interest in the problems of adapting instruction to the ends of elementary education. The various means by which this is done constitute

[1] Carnegie Foundation for the Advancement of Teaching, Bulletin Number 14, p. 151; Proceedings, N.E.A., 1909, p. 568.

[2] John Dewey, The Relation of Theory and Practice in Education, Third Year Book, Society for the Scientific Study of Education, 1904, p. 24. Cf. William Parsons, p. 80f.

in effect an in-service professional education for academically trained teachers, and amount to a substantial retreat from the doctrine of the sufficiency of the liberal arts ideal for the subject-matter teacher. Wherever such activities are inaugurated a different type of school is the result,—a type more or less blurred, however, because its professional purposes are so largely implicit in the president.

4. The "Purely Professional" Normal School.

If, however, the president lean professional-school-ward, the teachers college may aspire to be a "school of philosophy," such as President Thomas Gray (and others before and after him)[1] hoped for,—its curriculum grudgingly retaining " preliminary academic studies" until such time as entrance requirements should free it from an improper burden.[2] The focusing of attention upon "exclusively professional" studies has also its characteristic inadequacies. In practice it has always skimped scholarship. "Reviews" represent then the maximum study of subject-matter and, as Bagley has insisted, incur for the service the limitations of close horizons. A vague feeling of this has always radiated from the liberal arts ideal and along with less pertinent factors has contributed to "the generous development of academic work" mentioned by President Cook.[3] The limitation in question appears to have been earliest characterized by J. C. Greenough:

". . . If a normal school merely teaches its pupils what they are to teach, and merely trains them in the methods of elementary instruction teaching will be like a mechanical handicraft in which imitators will too often repeat in dull routine in their own schools what they have been trained to do in the normal school. We need more than imitative artisans. In schools of lower grade especially we need the inventive genius of the artist. The teacher of every primary school should understand much that lies beyond her immediate field of effort, that she may intelligently plan her work in harmony with the subsequent studies of her pupils and adapt her teaching to their present and future needs. . . . Hence, every normal school should include in its course what have been called 'culture studies.' These should be those studies which are valuable both as a means of culture and as means of a better understanding and appreciation of the studies of the common schools. . . . The attacks recently made upon the normal

[1] See especially, Proceedings, N.E.A., 1872, p. 198; 1893, p. 426f.

[2] Gordy, The Rise and Growth of the Normal School Idea in the United States, p. 90f.

[3] Proceedings, N.E.A. 1907, p. 633f.

schools find in some sections valid ground in the lack of scholarship of the normal school graduates as well as in the fact that the work of many normal schools is academic rather than professional . . ."[1]

Beyond this, there is undoubtedly sound reason in the following arraignment of the "strictly professional" tendency by "one of the most eminent advocates of the academic scholarship idea:" namely, that

"If the students getting ready for a teacher's career got nothing from a normal school except professional instruction and technical training, it is quite certain that a majority of them would mentally perish from the monotony of the effort and would find it necessary to decline to continue such unpalatable work."[2]

Under the conditions thus described the outlook for teachers colleges is not a clear one. With substantial identity between their treatment of subject-matter and that of the liberal arts colleges, their distinctive function must be a narrow one, represented mainly by their work in methods and practice,—for their courses in psychology and the history of education are very often treated in characteristically academic fashion. Why, indeed, should a distinction be drawn between the treatment of one science and that of another for the same vocation?

5. The Persisting Academic Tendency.

With the twentieth century a second period of skepticism of the general value of method was entered upon. Expressions from three normal-school presidents will sufficiently illustrate a widespread tendency:

". . . The well-trained and exact scholar with no knowledge of what is technically known as 'method' is more likely to succeed in teaching than the one with less training and scholarship who has the amount of professional training given in the average normal school. The reaction against the idea that a good scholar must be a good teacher has gone too far, and it is too nearly assumed that a good teacher need not necessarily be a good scholar. In the opinion of the writer, *for the preparation of teachers for the grades above the fifth*, any school that can maintain the claim that it gives the best possible training in the art and science of each subject upon its curriculum, may also maintain the claim that it is a good school for preparing teachers . . ."[3]

"When the demand is made that the course of study in a normal school shall be strictly professional, we shall be enlightened enough to recognize that the mastery of a subject is as fit a professional occupation as any in

[1] Proceedings, N.E.A., 1877, p. 155f.

[2] Quoted by President John W. Cook, Proceedings, N.E.A., 1907, p. 633.

[3] Proceedings, N.E.A., 1894, p. 850f. My italics.

which an intending teacher can find himself. . . . The chief weakness in our grammar schools today comes not so much from lack of knowledge of special methods as from lack of . . . scholarship and the spirit of inspiration that goes with it . . ."[1]

". . . In the high and grammar schools is needed a richer scholarship; in the lower grades a minute knowledge of all the arithmetic, geography, history, science, hygiene, poetry, stories, music, drawing, industrial art, sewing, plays and games used in these grades—a comprehension of their educational purpose, and a copious stock of devices essential to the teaching of these subjects . . ."[2]

Two of these citations locate the distinctive work of the school for teachers mainly in the problem of adapting instruction to the lower-grade pupils. Whether or not this view warrants the hope sometimes entertained by supporters of high-school training classes that teacher-training on the secondary level could with little extension provide the necessary "minute" reviews of lower-grade materials and the "copious stock of devices" needed by lower-grade teachers,[3] it would surely warrant the hope of liberal arts colleges that they might be successful in meeting the needs of the teachers of higher grades. Only the conjunction of the two is needed to eliminate the normal school. Acceptance of the liberal arts goals for the subject-matter teacher is a step in the direction of the second outcome.

Since 1900 the liberal arts tendency in normal schools has been obvious.[4] To this the next chapter will return. For the present it will be enough to affirm that upon definition of the peculiar responsibilities of the subject-matter teacher; upon the setting up of definite additional expectations for his work, depends the hope of the *teachers* college. Otherwise, the old complaint of "duplication" will be given fresh point; for in what could lie the warrant for extending the normal school to give two additional years of academic education? It would appear that as thus conceived the distinctive service of the institution could be rendered within the limits of the present "standard two-year curriculum." The clue to the organization of instruction in the teachers college must be found in the Stowe-Edwards suggestion of the "distinctive" function of the school for teachers: its

[1] Proceedings, N.E.A., 1903, p. 543f.

[2] Proceedings, N.E.A., 1914, p. 498f.

[3] For an early suggestion of this see W. E. Crosby, Proceedings, A.N.S.A., 1870, p. 25.

[4] See Chapter II, p. 66.

fundamental warrant, they thought, lay in the implications of a suffusing professional attitude toward the subject-matter of the school studies.[1]

6. The Demands of the Situation.

The net result of the discussion thus far has been to point out the dominance of the academic tradition in the work of the subject-matter teacher in all the types of normal school, the barriers to a close-knit organization of instruction that inhere in the acceptance of the "dualism of subject-matter and method," and some of the factors (both adventitious and inherent) that have operated to fix and extend it in practice. It has been shown that in all the three prevalent curricular patterns the effect has been to secure some recognized value at the cost of slighting other values equally indispensable to the teacher's success.

The next step, then, is to consider an alternative organization of instruction for teachers colleges, in which the function of the teacher of teachers is specifically enlarged beyond the functions recognized in the work of the schools of general education.

Such an organization of instruction must by planful prevision recognize more fully and directly than has ordinarily been done, the following elements of the teacher's equipment.

On the side of scholarship appears one unique responsibility which the teacher of teachers must more consciously assume. As in a peculiar sense the conserver of the racial inheritance, the teacher of children especially needs an ingrained appreciation of the materials that are to be transmitted:

"Is it not?" asked one consistent champion of this view,—"Is it not the specific task of education to represent in each generation the human experiences that have been tried and tested and found to work,—to represent these in the face of opposition if need be,—to be faithful to the trusteeship of the most priceless legacy that the past has left to the present and to the future? If this is not our function in the scheme of things, then what is our function? . . ."[2]

"What is needed first of all," recently declared another teacher, "is a different ideal of teaching. When translated into educational terms, the ideal of democracy means that the individual is entitled to share in that great mass of intellectual and spiritual achievements which we call civilization. We cannot teach every subject in the curriculum to every individual,

[1] Proceedings, N.T.A., 1865, pp. 277–8.

[2] W. C. Bagley, 1909, Craftsmanship in Teaching, p. 199. Cf. Proceedings, N.E.A., 1916, p. 962, and Julius Boraas, Teaching to Think, 1922, p. 79f.

but we can undertake to teach every subject in such a way as to make it a means for gaining a broader outlook on life. . . . When mathematics is taught, not only so as to show the abstract relations of numbers, but also to reveal its bearing on practical affairs and on the great discoveries that have revolutionized our conceptions of the universe, it will lose its formal and technical character and become invested with vital interest. When science is so presented as to make known the process by which men have gained control over nature and have found escape from the bondage of superstition, bigotry, and intolerance, it becomes a story, not merely of inanimate nature, but of the great drama of human development. When history is used to show what men have fought and died for, and the whole tangled web of motive and circumstance out of which our present civilization has emerged, it is raised from a catalogue of a dead past to a revelation of a living present. To give the oncoming generation such glimpses of the meanings and values of life is our high calling as teachers. . . . Our national safety lies in the general intelligence of our citizens, which means the ability and the disposition to understand both sides of . . . questions and to adjust them in the light of the common good.

"To cultivate this ability and disposition is in part a problem of the curriculum and in part a problem of teaching. Of these the latter is, in my judgment, the more important. . . . *Our teachers can not teach as they should, because they have not been trained to see their subjects in the broad perspective which shows what these subjects have meant and what they still mean in the experience of the race. Our teachers can not give what they do not have.* We have not yet attained to that democracy of the spirit to which nothing human is foreign and to which every subject in the curriculum tends to present itself in its broad human meaning. Yet unless we cultivate this democracy, we can not hope for that community of intelligence and of purpose without which this nation can not permanently endure . . ."[1]

While the vigorous prosecution of the traditional purposes of scholarship may leave as by-product certain deposits having this quality, except in its ripest manifestations the central tendency of scholarship, as has been pointed out, is toward the margins of the master's control,—and therefore, unconsciously *away from the elements.* The importance to society of a deeply appreciative attitude toward the common school materials is so great as to make it imperative that the teacher of teachers in every subject consciously organize his work toward this end. The words of Edward Everett upon this idea in 1837 might well be chiseled upon the cornerstones of all schools for teachers:

"If there be any . . . to whom the words . . . 'common school education' convey an idea of . . . insignificance, such persons are ignor-

[1] B. H. Bode, School and Home Education, Volume 41, Nos. 6, 7, 8, 9, and 10, June, 1922, p. 97f. My italics. Cf. his Fundamentals of Education, 1922, Chapter I.

ant . . . of the true character of our political system. . . . The branches taught in our public schools, when taught in a finished, masterly manner . . . are of greater value than all the rest which is taught at school. . . . Our common schools are important in the same way as the common air, the common sunshine, the common rain,—invaluable for their commonness."[1]

Wisdom such as this needs to be reappropriated in each generation. Scholarship can set itself no more dignified or socially important task than that of illuminating and investing with significance the basic materials of the elementary curriculum. The need becomes the more imperious in proportion as forces are at play that tend in the opposite direction. It is useless to expect effective teaching of despised materials.[2] In the nascent technique of teaching the fine arts, especially literature, it is accepted as the *sine qua non*, the ultimate condition of effective work, that the teacher shall himself prize the product that he teaches. Mr. Strayer is quite explicit upon this;[3] and the detailed technique set forth by Hayward assumes it in every phase of his fascination exposition.[4] Thus, obscurely from a new angle, exploration in educational technique reapproaches an old and fundamental conception of the values of subject-matter and the conditions of effective teaching.

On the side of technique the teacher of subject-matter can only in part discharge his peculiar responsibility by the most artistic teaching. The distinctive pressure upon the public-school teacher is the pressure to adapt culture materials to the capacities of the children,—a pressure requiring an alert sensitiveness to the learning process, and one that in the opinion of notably successful teachers is best met by fostering a process of introspection concurrently with the learning of subject-matter.[5] This would perhaps be the surest protection of the profession against the danger, pointed out by Carter, of the scholar's failure to consider "the condition" of the beginner; and such an expectation on the part of the teachers college would perhaps be almost

[1] Barnard op. cit., p. 158.

[2] For an early expression of this see the American Institute of Instruction, 1835, p. 8.

[3] G. D. Strayer, Brief Course in the Teaching Process, p. 79.

[4] F. H. Hayward, The Lesson in Appreciation, 1917.

[5] See Chapter II, p. 83; and Bulletin Number Fourteen of the Carnegie Foundation for the Advancement of Teaching, especially p. 231. See also Freeman, Psychology of the Common Branches, p. 3f.

sufficient to evoke an adequate technique from the teacher of teachers.

On the side of the elements of "professional intelligence" it appears that the teacher of subject-matter must consciously share with the teacher of theory the responsibility for enabling the prospective teacher to evaluate new educational proposals. Such proposals involve not only attitudes toward subject-matter but also the appropriate technique for teaching it. Among the evil consequences of the historic separation of methods from subject-matter and the consequent division of teachers in the normal school, perhaps none has been more constant than the exaggeration of the gap between "modern theory" and "established practice." No need of the profession has been heavier than that the teachers should realize the common roots of the two in past educational experience. Though to the teacher of methods, and through him to the service, the benefits of a genetic study of teaching practices would be undoubtedly large in way of tempering rash innovation, it is probably the scholarly instructors in subject-matter who can render greatest service in giving poise and balance to teachers by tracing the evolution of the school use of the common studies. If for every subject of study a reliable history of the development of its teaching practices and of the determining conditions underlying them were available, the enduring complaint about the recrudescence of unworkable practices[1] might pass,—and renewed proposals of practices that in the past proved unworkable would arise only on the basis of convincing expositions of substantially changed conditions. Clearly, among the responsibilities of the teacher of subject-matter is that of treating historically the methods of teaching his subject. This responsibility is conferred upon him by virtue of his privilege of working in a professional school for teachers. By reason of this in addition to his duty to keep abreast of the extensions of the materials of scholarship in his field he has an unique professional obligation to view, in the perspective of their past, all proposals for the teaching of his subject. Of all persons he should be the best able to give the prospective teacher the poise and balance needed in this respect.

Do proposals such as these reflect only "the confident amateur,"—whom President Butler describes only to impale upon the

[1] American Institute of Instruction, 1879, p. 69f. Cf. Walter Johnson, 1825, quoted by Gordy, op. cit., p. 15.

javelin phrase? The argument is not closed. Abundant evidence of the unsatisfactoriness of the solutions under discussion appears throughout the history of the normal school in the persistent tendency of the teacher of teachers to develop courses departing significantly from the traditional patterns of both "academic" and "professional" instruction. Many subject-matter teachers here and there and now and again have felt the need of a professional adaptation of their material and instruction, and in this or that way have modified their work to meet neglected needs of the service. Likewise numerous teachers of methods at various times and in widely separated places have been impressed with the inadequacy of courses focusing upon the matters of technique and a teaching organization, and have incorporated into their work elements of a distinctly liberalizing tendency.

Thus unconsciously in attempting to respond to the subtler requirements of the service the more enterprising of both "academic" and "professional" teachers in various normal schools of all types have moved from their traditionally aloof positions along lines that tended to converge in an integration of subject-matter and method.[1] It is the task of the next section of this study to give a survey of this tendency and to bring together the main results of efforts, widely separated in time and place, to shape instruction to the peculiar needs of prospective teachers.

[1] It is interesting that this should be an object of the present French reform movement in the normal schools: "La reforme de 1920 a pour but de rendre aux ecoles normales le sentiment net de leur role speciale: a aucun moment depuis l'entree de l'élève jusque a sa sortie, ses maitres n'oublieront qu'il est destiné à devinir instituteur. Son éducation professionelle doit être l'object de tous les soins et elle doit commencer dés le premier jour de la lre année. Mais, pour un homme dont la mission est d'instruire les autres, l'éducation générale fait partie integrante de l'éducation professionelle." Revue Pédagogique, November-December, 1920, Vol. 77, p. 356.

CHAPTER II

THE DEVELOPMENT OF THE IDEA OF THE PROFESSIONAL TREATMENT OF SUBJECT-MATTER

I. Rival Theorists

In the foregoing historical sketch of the theory of normal-school procedure, the growing point was seen to lie at the juncture of the well-established practices of general education and the germinal ideas of professional preparation. It was shown that two outstanding elements in the teacher's equipment were recognized,—scholarship and professional fitness; and that conflicting evaluations were placed upon these by men equal in opportunity to understand the problem and to influence practice.

1. The Common Ground of the Opponents.

The opposing groups, however, held certain beliefs in common, —a fact which largely determined the direction of development.

First, both alike believed in the political necessity of an enlightening public education,[1] and to the leaders in both groups it was not only axiomatic that one must know before one teaches, but also that to teach one must know in a peculiarly masterly fashion. From the beginning of the idea of a special school for the education of teachers this distinction was drawn between a merely liberal education and the scholarship needed by the teacher. The earlier citation from Edward Everett[2] may profitably be augmented at this point by a few others taken from documents whose sources give them peculiar value as representative opinion: namely, *The Memorial of the American Institute of Instruction to the Massachusetts Legislature* in 1837, which may be assumed to reflect the judgment of the permanent teachers of the east; and the address of Calvin Stowe before the "College of Professional Teachers" of Cincinnati and Columbus, which probably similarly reflects the thought of the permanent teachers of the west.

". . . He [the teacher] must have a thorough knowledge of whatever he undertakes to teach. . . . If the teacher understood thoroughly

[1] See American Institute of Instruction, 1835, p. 75, e.g.

[2] Chapter I, p. 15.

what is required in the usual prescribed course, it would be *something.* But we maintain that the teachers of the public schools ought to be able *to do much more.* In every school occasions are daily occurring on which from a well-stored mind, could be imparted, upon the most . . . important subjects, much that would be of the greatest value to the learner at the impressible period of his pupilage. Ought not these occasions to be provided for? . . ."[1]

The first block of instruction in the Teachers' Seminary, according to Calvin Stowe (1837) should be:

"A thorough scientific and demonstrative study of all the branches to be taught in the common schools, with directions, at every step, as to the best methods of inculcating each lesson on children of different dispositions and capacities, and various intellectual habits. . . . The teacher . . . must review the branches of instruction with reference to their scientific connections and a thorough demonstration of them which, though not always necessary in respect to their practical application to the actual business of life, is absolutely essential to that ready command over them which the teacher must have in order to put them into the minds of others . . ."[2]

This view, Mr. Gordy shows, characterized also certain of the academies that undertook the preparation of teachers.[3] It is liberally written into the early professional books as well as into the periodical educational literature:

"What sort of knowledge upon any given subject should the teacher possess?" asked Edward Mansfield in 1851, and approached the answer with a second question: "What is the *business* of a teacher?" The answer comes clear: "His position is strictly that of a conveyor of knowledge. . . . To do this successfully, requires that his instruction should carry . . . a conviction of truth. . . . To convince of truth . . . requires reasoning, and to *reason* upon a subject, requires that the instructor should understand what is called in science its *rationale*, as well as its facts. . . . This *rationale* . . . is nothing more nor less than a thorough analysis of the subject taught. Whoever teaches must *analyze*. . . . This is the *distinction* between the *kind* of knowledge on the same subject which a teacher must possess, and that which is necessary to the common business of the world . . ."[4]

Here, then, was one reason for teaching subject-matter diligently, but not one that ensured its adaptation to elementary school pupils.

[1] Memorial of the American Institute of Instruction to the Massachusetts Legislature, 1837. Barnard, op. cit., p. 86f.

[2] Calvin Stowe, address before the College of Professional Teachers of Cincinnati and Columbus, quoted by Barnard, op. cit., p. 105f.

[3] J. P. Gordy, op. cit., p. 30.

[4] Edward Mansfield, American Education, 1851, p. 65f.; cf. American Institute of Instruction, 1838, p. 170.

Second, it was very early perceived by both groups that good instruction in the usual subject-matter was itself an important factor in transmitting effective method. The following citations will illustrate:

". . . The teacher's fitness, at the present day, depends very much on the kind of instruction which he received while at school," said Edward Everett in 1839. . . . "A good degree of the school-keeping capacity, and I may say, incapacity, are traceable to this source."[1]

"It is true," concluded a committee of the Connecticut General Assembly in 1845, "that every one gets some idea of teaching while he is himself obtaining the rudiments of knowledge . . ."[2]

Here was a second sound reason for teaching subject-matter to prospective teachers,—one that might have been valued much more highly by the advocates of "purely professional" education for teachers, if it had been less highly valued by those who seemed to be arrogantly skeptical of the worth of method. Before the establishment of the normal school it received due recognition from the reformers. Marshaling the arguments for a school for teachers, The American Institute of Instruction in 1837 included the following:

"In the first place he [the future teacher] will see there an example of right ordering and management of a school; the spirit of which he may immediately imbibe and can never after be at a loss, as to a model of management, or in doubt as to its *importance*.

"In the second place, by listening to the teaching of another, he will be convinced of the necessity of preparation, as he will see that success depends on thorough knowledge and a direct action of the teacher's own mind . . .

"In the third place, he will see put in practice methods of teaching; and though he may, on reflection, conclude that none of them are exactly suited to his own mind, he will see the value of method, and will never after proceed as he would have done, if he had never seen methodical teaching at all . . .

"In the last place, if the right spirit prevail at the seminary he will be prepared to enter upon his office with an exalted sense of its importance and responsibility—not as a poor drudge . . ."[3]

All these points, it will be clear, are in recognition of the value of example.

2. The Beginnings of the Division.

After the normal school was established, however, and the actual business of educating teachers began, the ideal of a

[1] Edward Everett, Barnard, op. cit., p. 152.

[2] Barnard, op. cit., p. 19.

[3] Quoted by Barnard, op. cit., p. 89.

masterly control of subject-matter joined with the momentum of the liberal-arts tradition to hamper the development of a more conscious professional instruction. The way was open for an exaltation of unconscious example at the expense of precept. The statement of the opponents of normal schools in Massachusetts in 1840 that every well-instructed person has coincident to the acquiring of knowledge also acquired the art of instruction was the inevitable outcome. This view constituted a negation of the fundamental idea upon which the normal school was established,—namely, the inadequacy of mere scholarship,—and had to be opposed by the reformers.

Hence, in spite of the general recognition of a substantial core of truth in the position, the tendency which it consolidated was regarded as dangerous by those whose central interest lay in the improvement of common-school teaching. While many teachers of prestige were emphasizing the efficacy of good instruction in subject-matter as "unconscious tuition" in method, it was neither necessary nor expedient for those concerned in developing "the science and art of teaching" to say much of it. Though doubtless often especially well exemplified in the work of the early normal schools, this phase of the professional education of teachers hardly appeared in discussions of the theory of the curriculum until after the Oswego movement began. By that time the rivalry of "academic" and "professional" was so sharply defined that explicit attention had to be given to such operative factors as were clear. Then, the first normal-school committee on the curriculum (1869) definitely reaffirmed the incidental value for method of good subject-matter teaching, and declared its insufficiency:

> "We assume," admitted President Phelps, whose championship of a 'purely professional' curriculum had again raised the issue,—"We assume that one of the best methods of teaching how to teach any subject is actually to teach that subject upon the most approved plan. This method, however, is but one of many, and should never be exclusively relied upon. Special drill in the art of teaching should be a constant accompaniment of the course . . ."[1]

From that time forward the principle of the absorption of method from good instruction was capitalized by the advocates of vigorous subject-matter courses, and its value admitted, though somewhat deprecatingly, by those who saw more hope in

[1] Proceedings, A.N.S.A., 1870, pp. 11–28.

the development of direct instruction in "the science and art of teaching." The difficulty with it was that it did not ensure the adaptation of instruction, the original failure of scholarship; and it tended toward formalism:

"Facts show," said President Wickersham, "that the possession of knowledge does not imply ability to impart it. . . . Good scholars do not always succeed in becoming good teachers. Persons who have been well taught must have learned something concerning the methods by which they were taught, but they can not intelligently follow these methods in their own practice unless they have carefully studied all their details and the principles upon which they are founded. . . . Methods of teaching can not be well studied incidentally. They have a philosophy of their own, and should be made a definite object of study . . ."[1]

3. The Problem of Differentiation.

The problem of the educationists was how to differentiate the new institution from the older one,—how to realize the professional ideals. What these ideals were, even, was not entirely clear. All that was clear was that mere scholarship was insufficient; and that successful teaching involved elements of art and skill, procedures probably based upon "laws of the mind," and certainly recognizing "the conditions of the child." Could not these be taught to prospective teachers? It was the assumption that they could,—even as practitioners in any other occupation are wont to help one another by discussing their technique. Gallaudet thus expressed the hope in 1825:

"Unaided . . . genius, however brilliant; invention, however prolific; observation, however acute; ingenuity, however ready; and perseverance, however indefatigable, have to grope their way through a long and tiresome process to the attainment of results which a little acquaintance with the labors of others in the same track of effort would render a thousand times more easy, rapid, and delightful . . ."[2]

From the two great educational associations of the period came positive expressions:

"The teacher should know *how* to teach. This, we believe, is the rarest and best of his qualifications. Without it, great knowledge, however pleasant to the possessor, will be of little use to his pupils, and with it a small fund will be made to produce great effects . . ."[3]

[1] J. P. Wickersham, Methods of Instruction, 1865, p. 29.

[2] Thomas Gallaudet, Barnard, op. cit., p. 39.

[3] Memorial of the American Institute of Instruction to the Massachusetts Legislature in 1837; Barnard, op. cit., p. 87. Cf. American Institute of Instruction, 1832, p. 202.

"There is a great variety of methods for inculcating the same truths," said Calvin Stowe to the College of Professional Teachers of Cincinnati and Columbus in 1837; "and the diversities of mind are quite as numerous as the varieties of method. One mind can best be approached by one method, and another mind by another; and in respect to the teacher, one of the richest treasures of experience is a knowledge of the adaptation of the different methods to different minds. These rich treasures of experience can be preserved, and classified, and imparted in the Teachers' Seminary . . ."[1]

Here was the subject-matter of "method."

In the classic address of Edward Everett in 1839 a similar faith is expressed:

"It is hoped," he said, "that the most important principles may be brought within such compass as to afford material benefit to those who pass even the shortest time at these institutions. The subject should be taken up at its foundation, in those principles of our nature on which education depends . . ."[2]

Barnard himself in his Third Annual Report, 1841, thus implied the hope:

"We have good teachers, but they have become such by improving their natural tact by experience in the school room. Who knows how many minds and hearts have been ruined or injured by the experiments of beginners? . . ."[3]

The illustrations may be closed by a striking utterance from President Heman Humphrey of Dartmouth in 1846:

"Whatever a man undertakes to do, the importance of his knowing *how* to do it rises in proportion to the magnitude of the interests involved and the difficulties to be overcome. . . . More, I will venture to say, is done during the first ten or twelve years in the humble district school to give tone and shape to the popular mind than in all the years that follow. . . . The art of education, as well as every other art, must be studied, must be learned . . ."[4]

4. The Basis of the Original Organization of Instruction.

In the beginning, however, even those most impressed with the idea of other needs of the teacher than scholarship were conscious mainly of the need of additions to the best academic education.

"The objects of the institution," said Carter (1825) "do not . . . become peculiar till after the pupil has acquired a certain degree of freedom and

[1] Calvin Stowe, Barnard, op. cit., p. 106f.
[2] Edward Everett, Barnard, op. cit., p. 154.
[3] Barnard, op. cit., p. 18.
[4] Heman Humphrey, Barnard, op. cit., p. 180f.

strength of mind; nor till after he has made the acquisition of the requisite amount of knowledge for the profession of teaching. Though a pupil would necessarily imbibe a good deal of clearness and method in his intellectual exercises by submitting the direction of them to a skillful instructor, the study of the science of teaching can not properly begin till he changes relations with those about him; and instead of following a course prescribed by another and exhibiting the powers of his own mind *without an effort to take cognizance of them*, he assumes to look down upon humbler minds and to detect and classify the phenomena of their subtle workings . . ."[1]

"Pupils should not be received into the Teachers' Seminary under sixteen years of age," said Calvin Stowe, (1837) "nor until they are well versed in all the branches usually taught in the common schools . . ."[2]

The general conception of the organization of instruction in the school for teachers, then, was that first it would ensure "thorough and accurate" scholarship, after which it would attack the problem of "the art of teaching." Obviously the unification of normal school work was to be approached gradually from two different positions,—"academic" and "strictly professional." The inherent overlapping of the two was to be discovered by degrees.

5. Early Contributions of the Liberal Arts Tradition.

The liberal-arts tendency expressed itself in the conception of a masterly scholarship for the teacher. A "strictly professional" aspect of the instruction in subject-matter, however, was somewhat developed where, as was sometimes the case in the beginning, the subject-matter teacher also taught "didactics." The emphasis of public discussion upon the peculiar function of the normal school and the belief in the efficacy of good example made such teachers unwontedly conscious of their own methods. The familiar report of Cyrus Peirce[3] describes his procedure in the teaching of subject-matter as one of

"giving every day, and continually, in my own manner of teaching, an exemplification of my theory."

What his theory was is perhaps clear enough in such accounts as Hall, Abbott, Palmer, and Emerson give in their handbooks. To get from the pupils an appreciative understanding of subject-matter was explicitly the aim of the best teachers in the 'twenties

[1] James G. Carter, Quoted by Barnard, op. cit., p. 79f. My italics.
[2] Calvin Stowe, Quoted by Barnard, op. cit., p. 104.
[3] Cyrus Peirce, Barnard, op. cit., p. 63, and Connecticut Common School Journal III, p. 142.

and 'thirties. The following language of Francis Wayland is representative of a widespread movement against mere memorization as the characteristic response of the student to difficult subject-matter:

"Let a pupil understand everything that it is designed to teach him. . . . Let it not be forgotten that precisely here is seen the power of a skillful teacher. It is his business to make a pupil, if possible, understand. Very few things are incapable of being understood, if they be reduced to their ultimate elements . . ."[1]

This view was an outcome of sagacious observations upon the results produced by an organization of instruction that could be satisfied by mere memorization. Such practice was seen to give as a persistent by-product " a distaste for learning," which was repeatedly traced[2] to the failure to "understand what was learned." The obvious reform was to develop a procedure that would ensure "understanding." The progress made in this before the normal school arose in America was rapid, though of course not universal: "Memorize first, then understand" was by many thought to be the logical order;[3] and "understand first, then memorize," a radical attitude. By 1833, however, a fairly definite technique was in existence, and was no doubt familiar to the early normal-school teachers. Beginning by "questioning them upon meaning," a process which took the form of an item test or memory question,[4] and guided by conviction of the necessity of understanding, this technique had risen gradually in the 'thirties into the topical recitation[5] by means of the information-organization question and the practice of requiring pupils to "recite in their own language." This latter, at least as an ideal, was probably well-established among the elite by 1839. Merriam in his *Intelligent Reader* of that date strongly advocates it; and this practice led to the topical recitation. Illustrated by

[1] American Institute of Instruction, 1830, p. 17f.

[2] American Institute of Instruction, 1832, p. 129f., e.g. See Chapter I, footnotes to pages 25–26.

[3] See, e.g., Ralph Finch's essay in support of this in 1843, which had the authority of his position as a deputy superintendent of schools. Quoted at length by Bullions in his grammar of 1845; The American Institute of Instruction, 1857, p. 35; 1865, p. 247. Cf. 1831, p. 132.

[4] See the questions in just any textbook of the 'twenties and most of those in the 'thirties, e.g. Cf. certain "silent reading" tendecies today.

[5] Jacob Abbott's Introduction to Abercrombie's *Inquiries Concerning the Intellectual Powers* is the best example of the period.

Abbott in 1833, this type of class work must swiftly have grown in favor. In the 'forties it was provisionally specified by the Board as the method to be employed in the Albany normal school "as far as the nature of the subjects will admit;"[1] at Westfield under President Dickinson the method was in force also;[2] in 1857 it was promoted by Alfred Holbrook in the private normal school at Lebanon, Ohio, by exercises in outlining;[3] and in the 'sixties was the exclusive method employed and taught in the Bridgewater normal school.[4] It was frankly a technique of textbook instruction, and in view of the arguments in defense of the textbook from 1830 on,[5] may be said to reflect the triumph of the basic American educational ideal of "individual effort." It was rapidly expanding in the 'fifties, and in 1870 was given its nearly final treatment by William T. Harris.[6] Henry Barnard, describing the appropriate normal-school utilization of it, said in 1850:

> "Subjects will be taught rather than textbooks; and the manner in which the same subject is treated by several of the best authors, will be compared and discussed . . ."[7]

This was a definitely professional element, which, beyond its contribution to technique, was significant in view of the fact, noted by Barnard in the same connection, that teachers have a voice in the selection of textbooks.

6. The Troubled Beginnings of Professionalism.

The "strictly professional" tendency concerned itself with the isolating of materials meeting the specifications of the "exclusively professional" ideal. The first step in this process was to render conscious and to formulate the elements of the experience of successful teachers. Toward this a substantial beginning had been made before the establishment of the normal school. Three American books of undoubted value and influence were in wide

[1] Finnegan, Agencies Employed in Training Teachers for the Public Schools of the State, Annual Report, Vol. II, 1917, p. 105.

[2] Gordy, op. cit., p. 601.

[3] Alfred Holbrook, The Normal, 1857, p. 32.

[4] A. G. Boyden, History of the Bridgewater Normal School, p. 130.

[5] E.g., American Institute of Instruction, 1837, pp. 165–172; 1857, p. 34. David Page, Theory and Practice of Teaching, 1847, pp. 117–130.

[6] Proceedings, N.E.A., 1870, pp. 177–191.

[7] Barnard, op. cit., p. 32.

use before the first normal school was set up.[1] All of these afforded an orientation for the prospective teacher or the beginner in regard to the recognized aims, problems, and solutions of the day. Hall's book, though rich in its recital of concrete situations, in its conceptions of the teacher's responsibility, and its suggestions on management, directed its central effort toward the technique of teaching. Upon this topic it marshaled the consolidated experience of successful teachers and indicated the growing points of practice in the 'twenties and 'thirties.[2] Prominent in it appears the contemporary revolt against memoriter work and the rising ideal of "understanding," the initial technique of which he illustrated with detailed examples of the proper treatment of difficult school topics. It was a technique of insistent "why's."[3] In his Teachers' Seminary at Andover in 1836, if not before, he supplemented his book by Watts *On The Improvement of the Mind*, itself a meticulous summary of what was known and believed in regard to ways of learning.

Each of the other books made its own contribution,—Abbott's notably to the subtler phases of the conduct of the school, the recognition of the elements of moral education, and the possibilities of the gentler discipline; Palmer's to the general reform of the system so as to eliminate the evils of the impermanent teacher. All bore heavily on the technique of instruction, and along with the Intellectual Philosophies[4] and the rich periodical educational literature of the day gave to the professional group its basic materials[5] and its ideals.

Such familiarity with the educational literature of the 'twenties and 'thirties as the author has been able to attain must be assumed also of the reader of this study. It is apropos, however, to point out not only that it was an abundant and rich literature reflecting on the part of the permanent teachers a wide and critical acquaintance with contemporary thought and practice both native and foreign, but also that it was turbulent in its conflicting aims, views, and practices. Few modern practices and little

[1] See Chapter I, p. 20.

[2] Like John Brinsley in *Ludus Litterarius* (1612) Hall summarizes the defects of current practice before illustrating "the better way."

[3] S. R. Hall, Lectures to Schoolmasters on School Teaching (4th edition, 1833), Chapters IX–XI.

[4] Chapter I, p. 23.

[5] For a compact summary of the topics of "Theory and Practice," see Barnard, op. cit., p. 37f.

of modern theory are wholly untouched in the educational literature produced by American teachers in the 'twenties and 'thirties. The implication, sometimes conveyed, of the relative simplicity of the early educational situation, could hardly be farther from the truth.

Some notion of the complexity of the problem of the aspirants for a "strictly professional" normal school is essential to the further discussion. It can perhaps be adequately suggested by the following summary of the outstanding oppositions of the time: "Practical" *versus* "cultural" education,—"utilitarian" *versus* "disciplinary" aims, scientific as over against classical knowledge;[1] "intellectual" *versus* "moral" and "physical" education;[2] education as the acquisition of knowledge *versus* education as the discipline of the faculties;[3] individual *versus* social ends in education;[4] sympathetic *versus* impersonal

[1] American Institute of Instruction, 1830, Francis Wayland, Introductory Discourse, p. 21; Gideon Thayer, Spelling and Defining, pp. 127–140; Warren Colburn, Teaching Arithmetic, p. 281; Cornelius Felton, Classical Learning, p. 307; 1831, Clement Durgin, Natural History, p. 214; 1832, Francis Gray, Introductory Discourse, p. 10; 1835, A. Crosby, Study of the Classics, p. 26; Jarvis Gregg, The Philosophy of Mind; Henry S. McKean, Ends of School Discipline, p. 136; T. B. Fox, Meaning and Objects of Education, p. 195. 1858, John Foster, Modern Notions of a Practical Education, p. 52. 1864, Edward P. Weston, Extremes in Education, p. 10. 1865, W. P. Atkinson, Dynamic and Mechanic Teaching, p. 241. 1866, M. C. Stebbins, Practicality in Education, p. 109. 1872, E. E. White, The True Education, p. 70.

[2] American Institute of Instruction, 1830, J. C. Warren, Importance of Physical Education, p. 28. 1832, William Sullivan, Introductory Lecture, p. 7. 1839, Elisha Bartlett, Head and Heart, p. 42; Abel Pierson, Physical Education, p. 211.

[3] American Institute of Instruction, 1830, James G. Carter, Development of the Intellectual Faculties, p. 59; Francis Wayland, Introductory Discourse, p. 16; William Russell, Infant School Education, p. 99. 1833, G. B. Perry, Primary Education, p. 120; Samuel Burnside, Classification of Schools, p. 79. 1835, T. B. Fox, Meaning and Objects of Education, p. 195. 1838, John Mulligan, Study of the Classics, pp. 40; 42; Joshua Bates, Moral Education, p. 53. 1857, J. W. Bulkley, Self-culture and Self-reliance, p. 77. 1857, Daniel Mansfield, Some Erroneous Opinions, p. 45.

[4] American Institute of Instruction, 1831, John L. Parkhurst, Motives to Study, p. 135. 1832, Francis Gray, Introductory Discourse, pp. 9; 12. 1833, Samuel Burnside, Classification of Schools, p. 79. 1834, Caleb Cushing, Introductory Discourse, pp. 5; 30. 1835, Henry S. McKean, Ends of School Discipline, p. 134. 1862, Samuel Eliot, Conservatism in Education, p. 11. 1865, W. P. Atkinson, Dynamic and Mechanic Teaching, p. 241.

discipline;[1] impermanent teachers *versus* trained teachers;[2] uniformity *versus* recognition of individual differences;[3] female *versus* male education;[4] and so on.

With regard to technique, the following oppositions should be noted as especially active: "memorization" *versus* "understanding;"[5] "self activity" and work "with a purpose" *versus* "compulsory task work;"[6] informal *versus* formal moral instruction,—"contingent education" and "unconscious tuition" *versus* direct moral instruction;[7] oral instruction *versus* text-book

[1] American Institute of Instruction, 1830, William Russell, Infant School Education, p. 110. 1831, Jacob Abbott, Moral Education, p. 48. 1834, Hubbard Winslow, Innovations in Education, p. 182. 1835, Henry S. McKean, Ends of School Discipline, p. 146; Timothy Dwight, Jr., Management of a Common School, p. 217; T. B. Fox, Meaning and Objects of Education, p. 184. 1857, Daniel Mansfield, Some Erroneous Opinions upon Education, p. 27.

[2] American Institute of Instruction, 1830, Francis Wayland, Introductory Discourse, p. 13; William Russell, Infant School Education, p. 115; James G. Carter, Development of the Intellectual Faculties, p. 65. 1831, William Fowler, Academies and Common Schools, p. 186. 1833, S. R. Hall, The Necessity of Educating Teachers, p. 249. 1835, R. C. Waterston, Moral and Spiritual Culture, p. 249. 1838, Theodore Edson, Private and Public School, p. 94. David Mack, Claims of the Age and Country on Teachers, p. 146. See also Gordy, op. cit., p. 52, for the suggestion that permanent teachers may not be desirable.

[3] American Institute of Instruction, 1830, Warren Colburn, Teaching Arithmetic, p. 283; James Carter, Development of the Faculties, p. 78. 1832, Francis Gray, Introductory Discourse, p. 19. 1834, Caleb Cushing, Introductory Discourse, p. 9.

[4] American Institute of Instruction, 1831, George B. Emerson, The Education of Females, pp. 17–41. 1834, M. Carll, Maternal Instruction, p. 120; Edward Mansfield, American Education, Chapter XIV.

[5] American Institute of Instruction, 1830, Francis Wayland, Introductory Discourse, p. 17; William Russell, Infant School Education, p. 102; Gideon Thayer, Spelling and Defining, p. 132; Warren Colburn, Teaching Arithmetic, p. 282. 1833, G. B. Perry, Primary Education, p. 121. 1835, Henry S. McKean, Ends of School Discipline, p. 143. 1857, Daniel Mansfield, Some Erroneous Opinions, p. 35. 1865, W. P. Atkinson, Dynamic and Mechanic Instruction, p. 247.

[6] American Institute of Instruction, 1830, William Russell Infant School Education, p. 104; 1832, Bronson Alcott, Early Intellectual Education, p. 133; 1838, Joshua Bates, Moral Education, p. 59. 1839, Thomas P. Rodman, Comparative Results of Education, pp. 186; 199. 1864, Edward P. Weston, Extremes in Education, p. 3.

[7] American Institute of Instruction, 1831, James Walker, Introductory Discourse, pp. 1–14; Jacob Abbott, Moral Education, pp. 45–64. 1835, R. C. Waterston, Moral Culture in Early Education, pp. 235–251. 1838, Elisha Bartlett, Intellectual and Moral Culture, pp. 31–50. 1865, J. D. Woolsey, The Teaching of Moral and Political Duties, p. 139.

instruction,—illustrative and objective teaching *versus* unaided effort of the pupil;[1] telling *versus* teaching;[2] the "child central" *versus* the "knowledge central" in method;[3] thinking *versus* knowledge as the aim;[4] individual effort *versus* recreative methods;[5] observation and experimentation *versus* opinion;[6] individual method *versus* general method;[7]

[1] American Institute of Instruction, 1831, W. H. Brooks, Education of the Senses, p. 121; John L. Parkhurst, Motives to Study, p. 67; Bronson Alcott, Early Intellectual Education, p. 142. 1833, W. C. Woodbridge, Teaching Geography. 1834, A. A. Goold, Natural History, pp. 230; 239. 1838, J. L. Russell, The Study of Natural History, p. 86; R. G. Parker, The Teaching of Composition, p. 188. 1857, Daniel Mansfield, Some Erroneous Opinions p. 34. 1865, W. P. Atkinson, Dynamic and Mechanic Teaching, p. 219. John Bascom, Popular Education, p. 170. David Page, Theory and Practice of Teaching, p. 135f; J. P. Wickersham, Method of Instruction, pp. 141–160. For the culmination of the defense of the textbook, see W. T. Harris, Proceedings of the American Normal School Association, 1870, pp. 177–191.

[2] David Page, op. cit., pp. 107; 356; 358.

[3] American Institute of Instruction, 1830, Francis Wayland, Introductory Discourse, pp. 17–19; James Carter, Development of the Faculties, pp. 56–94; Gideon Thayer, Spelling and Defining, p. 134. 1831, James Walker, Introductory Discourse, p. 4. 1832, George Ticknor, p. 39; Bronson Alcott, Early Intellectual Education, p. 163. 1838, Joshua Bates, Moral Education, p. 59. 1871, Bronson Alcott, Discussions, p. 10.

[4] American Institute of Instruction, 1830, James Carter, Development of the Faculties, p. 60; Gideon Thayer, Spelling and Defining, p. 135. 1831, James Walker, Introductory Discourse, p. 4. 1832, Bronson Alcott, Early Intellectual Education, p. 148. 1834, T. B. Fox, Meaning and Objects of Education, p. 195. 1838, Thomas Palmer, Evils of Primary Instruction, p. 211; Edward Mansfield, op. cit., p. 77. 1857, J. W. Bulkley, Self-Culture and Self-reliance, p. 77.

[5] American Institute of Instruction, 1833, G. B. Perry, Primary Education, p. 122. 1839, Thomas Rodman, Comparative Results of Education, p. 186. 1839, Thomas Cushing, The Teacher in the Nineteenth Century, pp. 79–92. 1857, Daniel Mansfield, Some Erroneous Opinions, p. 27. 1865, E. P. Weston, Extremes in Education, p. 28.

[6] American Institute of Instruction, 1830, Preface; James Carter, Development of the Faculties, p. 64. 1832, Bronson Alcott, Early Intellectual Education, p. 144; Francis Gray, Introductory Discourse, p. 7. 1835, Timothy Dwight, Jr., Management of a Common School, p. 215. 1879, Mrs. N. L. Knox, Discussions, p. XXXVIII. Alfred Holbrook, The Normal, 1857.

[7] American Institute of Instruction, 1830, Warren Colburn, Teaching Arithmetic, p. 283f. 1831, James Walker, Introductory Discourse, p. 5. 1832, Francis Gray, Introductory Discourse, p. 6. Calvin Stowe, Barnard, op. cit., p. 106f.

textbook *versus* objective teaching;[1] analysis *versus* synthesis;[2] and so on.

The whole situation may be more illuminatingly suggested, however, in the interpretation and counsel given by Hubbard Winslow, one of the Intellectual Philosophers, in 1834:

"Innovation seems to be the prevailing spirit of our age. . . . There is danger lest in our zeal to cast away what is bad, we cast away the good with it. On no subject does this danger press more directly than on that of education. The cause of education, being eminently popular, sympathizes very deeply and extensively in the prevailing spirit of the times. . . . It is a most rare and enviable wisdom, to retain all that is valuable in antiquity and to relinquish all that is useless. . . . There is a wise medium between the extremes of a servile admiration and a reckless contempt of antiquity. . . . The study and experience of several thousand years have not been entirely in vain. They have developed some facts and established some principles in respect to education which must be practically recognized in all successful attempts to improve the human race . . ."[3]

The immediate effects of this general situation were unsettling and disheartening in the extreme, as the following quotations from two men devoted to the preparation of teachers will suggest. Thomas James, principal of a model school, in 1839 spoke as follows:

"I find so much that is unsettled and undefined; so much that is wild and fanciful and absurd in both theory and practice; so much discussion of trifles, and so much to bewilder and mislead that. . . . . I can at no time declare myself to be certainly in the right way. . . . I have learned to look with suspicion upon all modern systems that attempt to overthrow our old-fashioned modes of instruction . . ."[4]

[1] American Institute of Instruction, 1831, Clement Durgin, Natural History, p. 221. 1832, Walter Johnson, Utility of Visible Illustration, p. 68. 1833, Benjamin Hale, The Best Mode of Teaching Natural Philosophy, p. 306. 1838, R. G. Parker, The Teaching of Composition, p. 187. 1857, Daniel Mansfield, Some Erroneous Opinions, p. 34f. 1868, John Bascom, Means and Manner of Popular Education, p. 170. David Page, op. cit., p. 134f.

[2] American Institute of Instruction, 1830, J. F. Grund, Geometry and Algebra, p. 185; 1857, Daniel Mansfield, Some Erroneous Opinions, p. 147. 1862, John Philbrick, p. XXII of the Journal of Proceedings; 1864, E. P. Weston, Extremes in Education, p. 21. See also Edward Mansfield, American Education, 1850, p. 66.

[3] American Institute of Instruction, 1834, p. 109f.; 1835, p. 183f.; 1862, pp. 1–32.; 1879, C. C. Rounds, Educational Journalism, pp. 67–83; A. C. Perkins, Extremists in Education, pp. 54–66.

[4] American Institute of Instruction, 1839, p. 77.

Forty years later President C. C. Rounds, probably as well oriented as most of his fellows, expressed a similar feeling:

"I am tired to utter weariness by the unending reiteration of exploded theories, the presentation and representation of educational machines that will not work but must be tried upon successive generations of children because the triers know nothing of previous failures and are equally ignorant of principles . . ."[1]

Nothing but reflective experience and insistent discussion could somewhat resolve such problems. The service of the methodologists to the profession perhaps will ultimately be considered to have been rendered as largely through the irritant stimulus of their aggression upon the academic studies as through the positive contributions they made to technique and the professional spirit. From James Carter and Thomas Gallaudet in 1825[2] through men like Thomas Palmer in 1838,[3] Barnas Sears in 1850,[4] and J. P. Wickersham in 1865[5] a clear passing on of the torch of professionalism is apparent. Drawing his inspiration perhaps immediately from a different branch of the same stream of effort, but thinking to the same purpose, Edward A. Sheldon perhaps did more than any one else to focus the "purely professional" aspiration. In the presence of academic normal-school curricula and mechanical methods of teaching on the part of normal-school graduates he diagnosed the case in 1863 as indicating the need of intense study of principles:

"The only remedy for this evil, as it seems to me," said Mr. Sheldon, "is the establishment of Training Schools for the professional education of teachers. Not schools in which the branches are taught, but where the whole aim and effort shall be to impart a practical knowledge of the service of education and the art of applying it . . ."[6]

In similar vein spoke President Phelps of Winona in 1866:

"Our normal schools ought in strict justice to themselves be relieved entirely except for illustrative purposes from a kind of work which properly belongs to schools for general instruction. It seems not only unfortunate,

[1] American Institute of Instruction, 1879, p. 69.
[2] See Chapter I, pp. 14; 24.
[3] See Chapter I, pp. 25, 35.
[4] See Chapter I, p. 17
[5] J. P. Wickersham, Method of Instruction.
[6] Proceedings, N.T.A., 1863, p. 95. It is interesting that Mr. Sheldon abandoned this position ten years later. See Proceedings, N.E.A., 1873, p. 189.

but absurd that professional schools should be established and supported at heavy expense and be compelled to descend to a class of work for which all the other institutions known to our system of public instruction as well as those of a private character already exist . . ."[1]

Equally positive was John Ogden in 1870:

". . . The normal school is *sui generis*. It is purely professional. Other institutions possess equal if not greater advantages . . . for imparting a knowledge of the branches of study. Why then should we cumber the normal school with these? I hope to see the day when it will no more be required to teach reading, arithmetic, and geography in the normal school except merely as illustrative branches . . ."[2]

President R. G. Williams likewise had no doubt:

"I have a very strong conviction that the proper work of the normal school is not the teaching of subjects but the teaching of methods. . . . In my opinion the method of teaching is worth more than the subject of the teaching . . ."[3]

And the Honorable Mr. W. T. Harvey of Ohio was of the same mind:

"A review, even, of branches that should have been thoroughly mastered in grammar or high school would seem to be a mere waste of time and effort."[4]

To normal-school men sensitive to the need of high scholarship in the public-school teacher and confident of the value of the method absorbed from good instruction in subject-matter, the reiteration of such statements became increasingly ominous as the rise of high schools promised a time when academic instruction might be dropped. The challenge to them was made direct in a statement of President Phelps supplementary to the one already quoted:

"I am well aware," he said, "that there are those who take a different view of the case, contending that this general teaching which is carried on to so great an extent in our normal schools is one of the most valuable aids to the professional instruction of the pupil teacher, since it affords him constant illustrations of good work . . ."[5]

[1] Proceedings, N.T.A., 1866, p. 130.
[2] Proceedings of the A.N.S.A., 1870, p. 8.
[3] Proceedings, N.E.A., 1872, p. 189.
[4] Proceedings, N.E.A., 1872, p. 198.
[5] Proceedings, N.T.A., 1866, p. 130.

The argument, he thought (and there were many who agreed with him), was quite inconclusive.

Such was the general state of affairs at the opening of the third quarter of the century. The force of circumstances (largely (1) the sound reasons for criticizing the quality of elementary-school teaching, and (2) the cogency of Gallaudet's analogy) seemed to place the burden of proof on the established practices, —which, however improper in theory, was after all fruitful in this instance. The defenders of subject-matter in the normal-school curriculum gradually rationalized their belief in its value for the professional education of teachers and in so doing found theoretic support which not only lifted their argument from the temporary plane of mere expediency and gave it a permanent outlook, but also, while enabling them still to cherish the values of liberal education opened vistas for giving it an unique professional quality. The records of this process are preserved in the proceedings of the great educational associations in the long discussion gathering about the conflict between "academic" and "purely professional" work.[1] The next step in the exposition is to summarize the net gains of the struggle in so far as they bear directly on the treatment of subject-matter. The complex development of method is touched only incidentally and cursorily.

II. Steps in the Differentiation of Normal School from School of General Education

The growth of the idea of a professional treatment of subject-matter reflects a slowly enlarging conception of the needs of the service and the corresponding task of the professional school. Discussion of it may be conveniently organized about the larger items of need that were continually recurring in the critical literature of the great associations. Nine topics may there be somewhat clearly traced. They are:

1. A professional attitude toward academic studies: learning with the view of teaching always in the foreground of consciousness of both teacher and student.
2. Analyzing the learning process while mastering the subject-matter.

[1] See Proceedings of the N.E.A., 1906, pp. 707–711 for a selected bibliography reaching back to 1864.

3. Comparison and evaluation of textbooks in the subject of study.
4. The historical development of the subject of study.
5. Educational values.
6. The historical development of methods in the teaching of the subject.
7. Acquaintance with the literature of the subjects studied.
8. Critical reëxamination of elementary studies in the light of the higher studies.
9. Familiarity with the characteristic problems and standards or criteria of achievement in the field.

The order of enumeration, though not especially significant, is roughly chronological. Strictly, item two (analysis of the learning process while mastering the subject-matter) appeared first in thought of the peculiar work of the teacher of teachers[1] and implied item one (a professional attitude), but it was submerged until the 'eighties, and it may plausibly be argued that its recrudescence then owed something to the development, from the 'sixties on, of the idea of a professional attitude toward academic studies,—for to that apparently may be traced the first exposé of the fallacy of Gallaudet's analogy, and thereafter the gradual vindication of subject-matter.

The meaning of the items, their points of origin, and the possibilities of other connections than those seen by the author will all best appear in citations from the sources utilized in this study.

1. The Professional Attitude toward Subject-matter.

Apparently the earliest clear expression of the importance of the professional attitude on the part both of the instructor and the prospective teacher was given by President Richard Edwards of Normal, Illinois, in 1865 in an address before the National Teachers' Association, in which he attempted to state the distinctive features of the normal school. His exposition may be briefly summarized in a mixture of paraphrase and quotation, as follows:

> The first need of the teacher is a properly high conception of the importance of his calling, which will inspire him to achievement and devotion; and this can best be fostered in an institution where all efforts center upon the study of the question how the work of teaching can be made effective. The

[1] Calvin Stowe, 1837, Barnard, op. cit., p. 106.

normal school, though using largely the materials of general education, uses them for the unique end of teaching how to teach. The normal-school students of arithmetic and Latin, for example, acquire the knowledge gained by students of these subjects in liberal-arts schools, but acquire [it] with reference to the problems of teaching it to others, which gives their knowledge a different frontage and one having the highest significance for their future work.

"Because different men have to do with the same object, it does not follow that the sight or thought of it gives rise in their minds to the same associations. To . . . shipwright and sailor, the . . . ship . . . is [not] the same. . . . To one she recalls the shipyard . . . to the other . . . winds, waves, distant voyages. So with subjects of study in school. To the ordinary student arithmetic is associated . . . with severe efforts at mastering its principles. . . . But to him who is preparing to teach, it recalls the points most difficult of explanation and the minds most difficult to reach. His constant question is not, how can I master this principle, but how will this point seem to my pupils? . . . In these schools, the whole animus of both teacher and pupil is this idea of future teaching. Every plan is made to conform to it. Every means proposed is tried by this as a test. There is no other aim or purpose to claim any share of the mental energy of either. It is the Alpha and Omega of schemes of study and modes of thought.

"And is this distinct and separate aim, . . . of any value to the novice? Will he be likely on account of this to make a better teacher than he would without it?—his training in other respects being the same? In answer . . . we must say most emphatically, Yes. . . . The difference in aim between the normal and the ordinary school makes one of the . . . essential characteristics of the former, and . . . this difference is of itself sufficient to establish its claim to separate support . . ."[1]

It is worth while in passing to call attention to the fact that the first paragraph of the quotation is leveled at the then current application of Gallaudet's analogy, on which, as stated above, was based the argument for an "exclusively professional" curriculum and the arraignment of instruction in subject-matter as involving "duplication of work." And it is well to point out that, incomplete though President Edwards's exposition was, it nevertheless isolated the uniquely important item in the equipment of the teacher of teachers and in the work of the normal school.[2]

[1] Proceedings, N.T.A., 1865, p. 277f.

[2] Was this view original with Edwards, or did he bring it from Massachusetts to Illinois? The question is suggested in a statement in which the historians of the Illinois State Normal University characterize the period of its life up to the retirement of President Cook as "the Bridgewater regime." (See Semi-Centennial History of the Illinois State Normal University, pp. 61 and 79.) There is, indeed a very close agreement between the point

In 1873, President Edwards returned upon the theme, breasting the current of hostility to the school studies. Sketching the facts in regard to the students' equipment and the duty of the normal school to the profession, he raised the question:

"Does it not seem unwise to insist that the normal school shall give only professional instruction? . . . It is the duty of the normal school to emphasize the particular work which is in danger of being neglected. . . . Let it lift the despised work of the elementary grades into its merited place of honor . . ."[1]

In 1872, President George P. Beard of Warrensburg, Missouri, in a brief address on the relation between learning subject-matter and learning method made the following fundamental observations:

"Matter and mental science should be taught at the same time with theory and practice in methods. Subject-matter, mind, the science and art of teaching, are subjects separable only in thought, but practically one. Method is best taught in the very act and experience of a scientific analysis of subject-matter in the light of mental science . . ."[2]

In 1873, President H. B. Buckham, in one of the notable addresses in the history of the normal school, analyzed the existing conflict between the advocates of method and the advocates of scholarship. Acknowledging "an instinctive distrust of those who say much of method and little of knowledge" he nevertheless attempted to analyze the relative contributions of scholarship and method of procedure to the power of the teacher. Taking it as axiomatic that the teacher must have generous scholarship he approached the question of the adequacy of the completest equipment of this kind, reaching the conclusion that,

"This other part [method of procedure], this second and subsequent element of power in the teacher, includes all that makes the difference between the scholar as such and the scholar who knows how to use his scholarship in the instruction of others in school. . . . Every skillful teacher

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of view set forth by Edwards and that expressed *twenty years later* by President A. G. Boyden. (See Proceedings, N.E.A., 1886, p. 389f.) But the "History of the Bridgewater Normal School," 1876, especially in the period of Tillinghast, when Edwards was a student there, gives hardly the scantiest reflections of the view above set forth.

[1] Proceedings, N.E.A., 1873, p. 166.

[2] Proceedings, N.E.A., 1872, p. 216. Cf. American Institute of Instruction, 1832, p. 39.

works after ideas, works out principles of education, even though (he) may never present a subject in exactly the same form to any two classes. And he carefully thinks out what he wants to accomplish through any given subject . . . and how he may reach it, and then he makes straight for it, using all the learning he can bring to bear upon his plan. And in doing this is he not using 'methods?' . . . Is he not supplementing his academic education with the lessons of his own daily work, and of his own experiments in the art of teaching? Does he not change his plan when he discovers a fault, add to it when he finds a deficiency? . . . It is not enlarged scholarship alone that does this; it is improved ways of using scholarship; it is a more direct and a wiser application of knowledge to teaching . . .

"If by 'methods' is meant something of what I have here intimated, much the same thing as you and I, taught by experience and our own observation and reflection have taken on in addition to or in correction of our first attempts at teaching, that which makes our own work more definite and satisfactory and more fruitful, then surely a part, an appreciable part of our power, is due to this element. . . . If it is thus a natural outgrowth of one's own efforts at improvement, . . . not something imposed from without, something contrived for another's use . . ., then such methods can hardly be changed into dry formulas. . . . The whole difference between the well educated person and a well-trained teacher consists in their clear apprehension and in their masterful application to the daily work of instruction . . ."[1]

In 1877 E. C. Hewitt, successor to Richard Edwards, extended the conception of the professional attitude toward the school studies: The aim of the normal school, he said, is to prepare young men and women for the work of teaching and managing schools:

"Where this aim is kept faithfully in view, the normal school can hardly fail totally in its purpose, even though the work attempted should differ but little from that of the academy or seminary. . . . It must be evident to every thinker that any youth who learns arithmetic, for instance, with the thought of teaching it again constantly before him, will be sure, in the completion of his work to find his knowledge of arithmetic taking an aspect in his own mind very different from what it would have presented had he studied the subject for practical use only. The same is true of any branch of study . . ."

He turned then to the current application of Gallaudet's analogy, according to which, as it was interpreted, academic work should have no place in the normal school:

"Nor is the necessity of giving instruction in the branches of study in our normal schools (academic work, as it is called) an evil so unmixed as some of our theorists would have us believe. If I want to teach some one how to

[1] Proceedings, N.E.A., 1873, p. 190f.

teach grammar, for example, it is not altogether an evil that I am called to do it in teaching him grammar by a correct method. I think it is certain that every one when he undertakes to teach any subject thoughtfully *is likely to revert in his mind very frequently to his own experience in learning that study;* and if his judgment approve the method that was taken with him, it will be easy for him to apply that method, with such modifications as may be necessary to the case in hand.

"But, we are told, . . . the true work of the normal school is professional. . . . But is it absurd to assert that you can teach a young man cube root in such a way as to do the very best professional work towards preparing him to teach cube root to others? There is a marked difference between the professional work that prepares for teaching and the professional work which prepares for other professions. . . . When a teacher in a normal school gives instruction of any kind and on any subject he is doing at that moment a branch of that very work which his pupil is studying to perform . . ."[1]

Here was the first effective breach in the armor of Gallaudet's analogy, and the beginning of a constructive confidence among the supporters of the school studies. A new tone of positiveness as well as a fresh angle of argument is apparent from this date on.

In 1880 two discussions clearly reflect the attitude of Edwards and Hewitt. President G. L. Osborne after concluding that instruction in subject-matter should constitute the major part of the work of the normal school, struck again at the hostility to the school studies as involving an unwarranted interpretation of the term "professional." He cited Prussian practice and concluded:

"The truth is, a thorough knowledge of the branches taught in the schools is as much a professional qualification as skill in methods of teaching. In the active work of the teacher his knowledge of both is constantly put to the test. . . . Under any circumstances . . . the normal school would clearly have the right to give such instruction as would harmonize the academic with the didactic training, thus giving unity to the professional culture . . ."[2]

The last sentence is obscure, but in the light of his conclusion that academic studies in the normal school are professional because "taught with especial reference to the teacher's work"[3] it appears to follow the argument of Edwards and Hewitt.

The paper was discussed by Mr. F. Louis Soldan of St. Louis, who concluded that methods could be taught effectively only

[1] Proceedings, N.E.A., 1877, p. 148f. My italics.
[2] Proceedings, N.E.A., 1880, p. 180.
[3] Proceedings, N.E.A., 1880, p. 183.

"in connection with the common studies as a part of the normal-school work . . . "[1]

In 1881, President J. C. Gilchrist resumed the theme:

"The charge is made that normal schools do nothing more than academic work. . . . But the claim that no part of the work done in the normal school should have any similarity to the work done in the academies and colleges is wholly untenable. . . . [It is assumed that] the aim and spirit of the [academic] instruction given by the two classes of schools is the same. This is a grave misapprehension. . . . The student in the normal school is concerned to learn the method of teaching as well as the scientific matter taught. . . . The two students under comparison are unlike in their spirit. . . . [It is assumed] that the general scholarship of the academic student bears the same relation to his profession that the general scholarship of a law student bears to his profession. From this premise it is claimed that since the law school insists on this general scholarship as a prerequisite for entering it, so ought the normal school. . . . This general scholarship of the teacher passes out of its common character and assumes a professional character. This general scholarship is the teacher's professional furnishing which he must use in every process of his work. It is not an accessory but the chief force; not a mere accompaniment but the main instrument . . ."[2]

Thus far, though the direction of thought was promising, the net results were not impresssive. In 1884 Thomas Bicknell reflected the status of the debate in the following words:

"The question is an open one whether what is styled professional study can be secured without a large measure of academic work . . ."[3]

The ultra-conservative scholarship group took heart from even a considerably modified recognition of their unchanging position. Mr. J. W. Barker, after listening to Mr. Osborne's paper reminded the association of what perhaps they might forget while seeking a professional attitude; namely, that,

"No person can teach clearly what he does not clearly understand. What he clearly understands he can teach. There must, there will be, grades of excellence in teaching. But the radical truth remains. The best qualification for the teacher is the clear and thorough understanding of what is to be taught."[4]

And the ultra-professional group perceiving some truth in the contention of the upholders of a professional view of the elemen-

[1] Proceedings, N.E.A., 1880, p. 183.
[2] Proceedings, 1881, pp. 202–3.
[3] Proceedings, 1884, p. 63.
[4] Proceedings, N.E.A., 1880, p. 190.

tary studies began to direct their criticism at the higher branches. Such at least seems to be the implication of the following remark:

"Our critics hasten to explain that the difficulty [objection] lies not so much in giving instruction in the branches named as in stepping beyond the proper limits and teaching other branches . . ."[1]

The possibilities of advance by discussion seemed to have been largely realized by 1885. Some fresh insight was needed. President A. R. Taylor attacked the problem by questionnaire and in 1886 presented the returns from fifty normal schools representing thirty states.[2] Interest centered about the question as to the proportions of academic and professional work in the curriculum. Among the data relevant to this study the following stand out:

"About four fifths of the schools . . . call from one half to two thirds of the curriculum academic, and the rest professional, though in many cases the statement is made that nearly every subject is taught with the wants of the teacher constantly in view. This is particularly true of the common branches . . ."

His own conclusion (p. 397) was that—

"In spite of . . . confusion of terms, it seems fully established that the instruction in our best normal schools during the first two thirds of each course is largely with the knowledge idea only in view, methods interpenetrating as opportunity offers and the ability of the pupil permits . . ."

The last phrase of the quotation is obscure, but the meaning appears to be revealed in a later sentence of the same address:

"No other scheme yet devised has afforded so fine an opportunity for impressing fundamental principles and imparting methods as that in which the pupil receives instruction from one who keeps his special needs ever in view . . ."

This, obviously, is the view set forth by Edwards and Hewitt. President Thomas Gray's report in 1887 of a searching questionnaire securing returns from seventy-four normal schools[3] revealed intimate details of the organization of instruction. Its immediate effect, though not its intention, seems to have been to stimulate interest in the professional possibilities of academic subjects.[4]

So far, though a fruitful attitude toward formulated subject-matter had been attained and had become somewhat widespread,

[1] Proceedings, N.E.A., 1880, p. 180.
[2] Proceedings, N.E.A., 1886, p. 396f.
[3] Proceedings, N.E.A., 1887, p. 472f.
[4] See p. 80.

the technique for capitalizing it remained esoteric,—an affair of "individual method" or personal insight. It was a description of this technique that was most needed,—for in the practice of the elite there had long been the essential core of such a technique. Further discussion of this topic will derive benefit from a backward look over some of the suggestive earlier attempts to analyze successful experience so as to direct expectancy into fruitful channels.

a. Pre-normal School Expressions of the Professional Attitude

Before the establishment of the normal school the essence of the problem thus arising was by a few notable teachers previsioned in their concern over teaching how to study. They tried reflectively to isolate the elements of their success. Accepting as they did in the 'twenties and 'thirties the aim of securing from the pupils an appreciative understanding of subject-matter, for them the problem of teaching "how to study" presented itself as paramount. In 1830 Warren Colburn, concluding that there could be no general method of teaching which should be adopted by all, declared that nevertheless there were a few general principles upon which methods of teaching should be shaped. He enumerated nine or ten of these. One is directly relevant at this point and with considerable abbreviation may be presented:

> "I shall now," he said, "endeavour to explain a principle which I conceive to be a very important one. . . . Many teachers have practiced upon it very well without having particularly thought about it. . . . But there are many who do not observe it, either in theory or practice. This principle depends upon the association of ideas. . . . No two persons have . . . the same association of ideas. . . . The consequence is that no two persons think of the same proposition alike. . . . When a proposition is made for two persons to reason upon, they will often take it up and manage it very differently in their minds . . ..
>
> "There are several practical results to be derived from this. First, it is very important that a teacher should be able readily to trace, not only his own associations, but those of his pupils when he hears them recite their lessons. When a . . . question is made to a scholar, he ought to be able to discover at once whether the scholar understands it or not. If he does not understand it, the teacher should be able to discover the reason why, and then he can apply the remedy . . . questioning the scholar and tracing his associations and finding out what he is thinking about and how he is thinking about it . . ."[1]

It was probably from this view that the doctrine of method as wholly individual was derived,—which constituted perhaps the

[1] American Institute of Instruction, 1830, p. 292f.

most effective argument against the attempts at "general method" in the first half of the century.[1]

Two years later, George Ticknor touched the same theme.

"Let the instructor bring his mind as much as possible in contact with that of his pupil, so as to feel precisely and fully the nature of the obstacles and difficulties which are from day to day encountered . . ."[2]

The Intellectual Philosophers were here and there interested in the same problem. A. R. Baker in 1833, attempting to instruct teachers in *The Adaptation of Intellectual Philosophy to Instruction*, was concerned with the problem of study:

"It [Intellectual Philosophy] will be equally important in order to enable him [the teacher] to direct his pupils to a proper method of prosecuting their studies. Scholars do not generally know how to apply their powers in the best manner. The teacher, therefore, after he has learned the state of their education . . . should show his pupils how to study. . . . There must be a direct line of connection, of actual contact, a mutual and reciprocal action of mind upon mind. . . . This . . . he can never realize who is ignorant of the very first principles of mental attraction and repulsion . . ."[3]

Intellectual Philosophy, he was sure, had a contribution to make, but

"It can not be suitably acquired by . . . an exclusive study of textbooks [on Intellectual Philosophy]. The latter may aid in its acquirement, especially if studied with direct reference to instruction, and under the tuition of . . . an experienced teacher. But it must be acquired principally by the study of one's own mind and by a critical observation of the minds of others . . ."[4]

In 1834 two other gifted teachers dropped hints bearing upon the basic problem. Timothy Dwight, Jr., commenting sagaciously on the opportunities of the alert teacher to improve his work, raised the question.

"What teacher is there who has not in his own self-instructive career made discoveries in the great field of teaching? . . . One of the most useful habits a teacher can form is that of recalling the feelings and thoughts of childhood and participating in those of his pupils . . ."[5]

[1] American Institute of Instruction, 1830, p. 283f., e.g. Cf. 1832, p. 29.
[2] American Institute of Instruction, 1832, p. 39.
[3] American Institute of Instruction, 1833, p. 283.
[4] American Institute of Instruction, 1833, p. 287.
[5] American Institute of Instruction, 1834, p. 85. Cf. Hewitt, Proceedings, N.E.A., 1877, p. 148f.

"Do men of the most thorough education usually find themselves unable to communicate well the knowledge they have acquired; and do they sometimes shrink from examination into the state of their minds? The common school teacher must daily practice and submit to what they regard as peculiarly difficult or irksome."[1]

And Jacob Abbott declared that

"The most important qualification of the teacher is an interest in the young."

Vaguely in the writings of Carter appear sundry hints of the same thing.

"Impatient and precipitate teachers quite often quarrel with their pupils because they do not arrive at the same conclusions with themselves, when, if they could but look into their minds, they would find that the ideas with which they begin to reason, or which enter into their processes of reasoning, are altogether different. . . . Seeing intellectual results, he [the properly educated teacher] can trace them, even through complicated circumstances, to their causes; or knowing the causes and circumstances, he can predict the results that will follow them. Thus, every day's experience would be carefully examined and made to limit or extend the comprehension of the general principles of the science. Is there any other process or method than this to arrive at a philosophical system of education? . . ."[2]

In 1837 the bearings of scattered suggestions like the foregoing upon the specific preparation of teachers were indicated by Calvin Stowe in the address so frequently alluded to in this study. The following quotation will introduce the discussion of the second[3] item in the teacher's equipment for handling subject-matter:

2. Analyzing the Learning Process while Giving Instruction in Subject-matter.

"The study of a topic for the purpose of applying it to practical use is not always the same thing as studying it for the purpose of teaching it. The processes are often quite different. A man may study music till he can perform admirably himself, and yet possess little skill in teaching others; and it is well-known that the most successful orators are not unfrequently the very worst teachers of elocution. The process of learning for practical purposes is mostly that of combination or synthesis; but the process of learning for the purpose of teaching is one of continued and minute analysis, not only of the subject itself, but of all the movements and turnings of the

[1] American Institute of Instruction, 1834, p. 205. Cf. 1839, p. 71.

[2] Barnard, op. cit., p. 80. It is perhaps superfluous to suggest that here was an ideal not realizable except by teachers permanently engaged in the occupation.

[3] See p. 65.

feelers of the mind, the little *antennae* by which it seizes and retains its hold of the several parts of a topic. Till a man can minutely dissect, not only the subject itself, but also the intellectual machinery by which it is worked up, he can not be very successful as a teacher. The orator analyzes his subject, and disposes its several parts in the order best calculated for effect; but the mental processes by which he does this, which constitute the tact that enables him to judge right, as if by instinct, are generally so rapid, so evanescent, that it may be impossible for him to recall them so as to describe them to another. . . . The musician would perform very poorly, who should stop to recognize each volition that moves the muscles which regulate the movement of his fingers on the organ keys; but he who would teach others to perform gracefully and rapidly must give attention to points as minute as these. The teacher must stop to observe and analyze each movement of the mind itself as it advances on every topic. . . . The mental habits best adapted for effect in the actual business of life are not always the mental habits best suited to the teacher; and the Teachers' Seminary requires a mode of instruction in some respects different from the practical school . . ."[1]

Here was a suggestive outline of the peculiar work of the teacher of teachers, which, with a very little expectant questioning, would have differentiated it clearly from the work of the academy and the college teacher. The organization of instruction in subject-matter, as conceived by Stowe, should itself be such as consciously to contribute elements of insight and technique to the prospective teacher. As has been shown, it rested upon the most successful practice of the pre-normal school period. Apparently the way was clear for the development of a distinctive type of instruction that would leave no question of the uniqueness of the normal school. The actual course of events, however, was quite otherwise. If the illustrations thus far brought together seem few and vague, let the reader attempt to discover others approximately as good at any time in the fifty years immediately following Stowe's address. It is puzzling to find that apparently the teachers of the decade immediately preceding the establishment of the normal school were far more hospitable to the idea of capitalizing the student's experience as a learner in order to "sensitize him to the learning process"[2] than were the teachers of the next half century. The explanation is not obvious. The teachers of the earlier period were not unique in their intense interest in the theory of the education of teachers;

[1] Barnard, op. cit., p. 106.

[2] Bulletin Number Fourteen of the Carnegie Foundation for the Advancement of Teaching, p. 231.

nor could it be assumed that the educational leadership of that period was greatly superior to that of the next fifty years. It apparently remains a fact, however, that they were more keenly alive to peculiar pressures upon the teacher than were men of the next half century. After the establishment of the normal school something prevented the theory from being applied. Conjecture as to what it was may seize upon a number of possibly explanatory facts,—such as the tendency to follow the line of least resistance, which would weight the scales in favor of the usual teaching practice; the jealousy of rival institutions, which tended to focus attention on "purely professional" material; Gallaudet's analogy, which undoubtedly established, both in the minds of the public and of many teachers, certain unfortunate expectations in regard to the characteristic work of the new institution, and threw about "academic studies" a certain unfriendly atmosphere; and finally, the inherent difficulties of the proposed procedure, which were such that it would not seem obvious except to gifted individuals with the peculiar intellectual frontage that arises from the conjunction, in a scholarly teacher, of the artistic temperament with intense interest in the learning process. Though not an exceedingly complex procedure, the practice described by Stowe clearly made heavier demands upon the teacher of subject-matter than did the usual teaching practice. It implied a masterly control of subject-matter, which was doubtless common among the permanent teachers; but it also implied a professional absorption in the learning process, which has apparently remained uncommon. At all events, the theory was apparently long forgot.

Not till 1887 do the records of the normal school again clearly reveal this point of view. In that year two normal school presidents again presented the essential idea. The first, President G. S. Albee, in a brilliant paper on psychology in normal schools, presented a plan for making it serve the ends of teacher-preparation.[1] The few excerpts which are needed for the purpose of this study do scant justice to the rare merits of attitude and insight which this address illustrates. Starting from the thesis that

"Training for scholarship should be had in close accordance with the laws governing thought; this is consciously exercised by teachers, though unconsciously by learners . . ."

[1] Proceedings, N.E.A., 1887, p. 495f.

he passes to the consideration of his own subject, psychology, and how it might be made conscious with the learner:

"So firmly has the tendency to accept second-hand data taken possession of the schools that both teachers and pupils seek first, and often last, the book, even in the branches where the data lie just at hand. In most branches this may well be deemed unwise, but in those whose subject-matter is largely personal experience, this tendency to look abroad for facts blinds the learner to most that is valuable. . . . So in a . . . profound sense does the study of psychology call for special treatment . . ."

He then presented a scheme whereby the special treatment most useful to prospective teachers might be hopefully approached:

"Through the coöperation of certain most skilled in the corps of instructors, mark out certain aspects of introspection which are to be pursued definitely and regularly in connection with specified lines of thought. . . . In this . . . we assume but one thing: the possession of 'common sense.' . . . The call to state what was thought first, second, third, in gathering his resources to answer questions on any topic is surely not beyond a student's ability; yet it contains the germ of all the series in psychological work. The distinction between fact and inference in an extended statement is not a remarkable feat; yet classes high in colleges and universities have . . . [failed] . . . from sheer lack of right exercise. . . . What is the mental attitude toward facts in the act of classifying? of analyzing? in generalization? . . . School management, class observation, the art of teaching, . . . are crowded with the more complex questions of feeling and motive and mental habit of the child. None of these can be wholly overridden even by the most rule-ridden teacher. Why then not plant each discussion squarely in the province of psychology according to its need and measure and treat it with the student faced toward the working of mind and motive, as seen in himself and inferred from others? . . .

"With these habits sedulously cultivated not only through a series of years, but coursing through the lines of daily practical duties, a ground and a grain must be laid which can be trusted for service and growth long after the accomplishments of the classroom have become of the past. Standards will have been gained and attitudes of thinking engendered that give a profound meaning to the later discussions of philosophy and the science of education . . ."

The paper presenting these ideas was discussed by President William Parsons of Terre Haute, Indiana. In the remarks which he made at that time and in two subsequent addresses of his in the next fifteen years appears a very clear, explicit, and casually illustrated exposition of the theory of teacher-preparation upon which the Indiana State Normal School was operated,

—from 1870 on, with only such deviations from it as are inevitably involved under the pressures of a rapidly growing student body (especially in a state having but one normal school) and the baffling difficulties of securing teachers of the various subjects who have both the academic scholarship and the professional attitude necessary to embody the theory in the classwork of the school.[1] The admirable clarity of the exposition which he gave of the theory, and his illustrations of its implications were clearly the longest step yet taken toward a concrete description of the technique of teaching implied in the professional attitude toward formulated subject-matter. Subsequent statements of his fundamental doctrine, indeed, have hardly added anything to it.

The following citations may perhaps derive some advantage from a preliminary statement to the effect that the point of view of Calvin Stowe, above set forth, is here elaborated and its vague implications are for the first time made explicit. The values of masterly scholarship are specifically and emphatically given first place in the education of teachers.

"Scholarship is the fundamental qualification of the teacher. At the present stage of the world's educational development it can not be too often and too strongly said that no mere excellence of method; no technical or professional training for the school room can in itself be offered as a substitute for large and accurate scholarship . . .

"But there is a strictly professional, a teacher's view of every subject of instruction; and this is at several vital points essentially different from the view furnished when the ends to be attained are those of general education and culture for its own sake. The normal school teaches arithmetic, geography, and history, not from the point of view that these are simply instruments to be employed in promoting general mind development and growth. It seeks rather to lead its student to build these up in his own consciousness in their organic aspect; to construct them in his own mind as coherent and orderly wholes, though under and in accordance with the inherent relations of dependence existing in the subject-matter itself. While this view of the subject is probably the true one for any educational purpose, it is preeminently the teacher's mastery of it. In other words, a professional study of any of these subjects will make the method of the subject a prominent object of attention. This is not strictly academic instruction in its popular acceptation. It is a professional aspect of the subject . . ."[2]

By the "method of the subject" he means its inherent organizing principle, its exclusive focus, the point of view which deter-

[1] See p. 89f. Even a systematic program of in-service education for academic teachers may not wholly protect a professional school from the academic tendency.

[2] Proceedings, N.E.A., 1887, p. 505.

mines the treatment it gives to the facts that it marshals,—in virtue of which, for example, the man of biology is differentiated from the man of sociology, the corn of botany from the corn of geography, and so on.[1]

"But a professional training seeks further to view every subject of instruction in its immediate relation to mind. It regards each as an outgrowth and product of mind; and therefore in the process of mastering the subject the pupil is at every step made conscious of the process by which he seizes it. He does not simply acquire the subject under its . . . logical or organic connections, but the very process of mind by which he translates this foreign world into the forms of his own conscious understanding are made subjects of reflection. And this because he in turn is to supply those conditions under which less mature minds shall most easily and effectively be led to acquire these subjects. It is held that this is somewhat different from academic work, and that it is a vital element in the teacher's training . . ."[2]

Here, he points out, appears the significance of Mr. Albee's notion of a special treatment of psychology in the normal school:

"Questions may arise in connection with every subject of study and with due attention to their psychological bearings, not only will the habit of mind be induced which is necessary to the higher phases of the mind study, but should the student withdraw at the end of a single term or year, he will have some insight into and appreciation of mind activity as the basis of intelligent school work . . ."[3]

In 1890 he returned to the theme, perhaps as a result of the widespread interest aroused in 1887 by President Gray's report upon "Methods in Normal Schools." The tendency of normal schools, which that report revealed, to employ teachers of method[4] was so opposed to the theory held by President Parsons that his entrance into the long debate might well have been a response to that specific trend. The following citation, though in general only amplifying his discussion in 1887, should be presented precisely for the sake of that amplification:

". . . An intelligent study of the subject for any purpose will lead to the mastery of subject-matter thus organized [i.e., with reference to the 'method of the subject']. It will require the student to think these facts and generalizations. . . . The normal school and the high school must alike master this subject-matter by seeing its inherent order and

[1] The *ratio formalis* of the thirteenth century.
[2] Proceedings, N.E.A., 1887, p. 505f.
[3] Proceedings, N.E.A., 1887, p. 507.
[4] Proceedings, N.E.A., 1887, p. 473.

method, and we may admit that there is equal necessity for both seeing it, though perhaps as a matter of fact the normal school lays the more stress on this. But the normal school student is not only to think the facts and generalizations in their inherent relations and interrelations, he is at the same time to think his thinking of these. He not only performs the mental activities necessary to seize the subject-matter, but *the very processes by which he does this are objects of most attentive consideration.* He sees that these are the necessary activities of the mind in acquiring this subject-matter. He comes to know this subject-matter as product of mind activity. To the act of knowing is added an act of introspection, and it is seen that there are necessary conditions of the act, and that only when these are supplied does the act mature into its proper product. . . . It will hardly be denied that if a given field of knowledge is to be acquired by a student, that person will be the best fitted to direct the process of acquisition who knows what mental activities must be performed, and under what conditions the processes will mature their legitimate products. An illustration will make this clear. The point to be mastered is, that every sentence contains certain main elements bearing a definite relation to one another. The school of general education would show that the sentence has its meaning in the fact that it expresses a thought or judgment; it would lead the pupil to see by reflection, illustration, and example, that a judgment has a subject and a predicate and that the perception of a relation between these completes this product. It would satisfy itself that the student had mastered the nature of the thought as a means of understanding the nature of the sentence and would then be ready for an advance point.

"Now, the normal school would do all this with equal thoroughness and completeness, and in addition would lead the pupil to a consciousness of his own mental procedure in acquiring the knowledge, and moreover to a rational verification of this as the true procedure in the premises . . .

"Thus, one who is preparing to teach the subject he is now mastering, adds a phase of reflection at every point, wholly unnecessary to the mastery of it as a means of self-culture for its own sake. He is acquiring a teacher's knowledge of the subject . . .

". . . The true test of qualification for admission to the normal school is that he [the applicant] is capable of making this reflective or introspective study of the subjects in the normal-school course. Strong dissent is here implied from that view which would have the person . . . acquire a large scholarship in the general school and then come to the normal school for what is called professional training. The normal school does not admit that any study of a subject in the general school does away with the necessity for a rethinking of it in its main features and for the purpose seeing it in relation to the mental processes it involves. To be sure, the time required for the professional view of it will be less if the general school shall have done well the work it has undertaken. But *we may still question if there has not been loss of time and energy in divorcing these two aspects of the subject in time and attention.* The school for general culture emphasizes the product of the mental act; that is, the knowledge. It takes no notice, or at best gives only incidental attention to the act which with its attending

conditions makes the acquisition. The normal school is not less careful that the knowledge shall be acquired, but it makes the process which results in the acquisition the chief object of attention and emphasis. If this last element in the process is, as has been held, peculiar to the normal school; if it is also necessary to the teacher's knowledge, and not important when general educational ends are sought, what valid reason can be assigned for separating in time what is denoted the academic study of the subject from its professional phases . . ."[1]

By way of an integrating summary, he then raised the question whether a high-school graduate with five years at his disposal to prepare for teaching should spend four years in a liberal arts college and a final year of "strictly professional" study, or the whole five in a normal school whose curriculum covered substantially the college curriculum and in addition carried along with it the sort of introspective analysis advocated. He concluded that the latter is the better plan and set forth the reasons:

"First, the normal school will put an emphasis and stress on the organization of the subject . . . that the general school . . . attaches less importance to . . .

"Second, in a normal school every subject is to be taught as an illustration and exemplification of the doctrines of education and method which are the exclusive subject of study in the strictly professional subjects of the course. These . . . find in the everyday instruction in the academic phase of the normal school work complete illustration and exemplification. No other procedure affords as this does, the opportunity to make each phase of the work strengthen and reinforce the other . . .

"Fourth, in the normal school the student puts himself in the attitude of the teacher while studying a given subject. He assumes the teacher's attitude toward everything he takes up . . .

"Fifth, but perhaps the strongest reason for pursuing the academic subjects, so called, in the normal school and in immediate connection with the exclusively professional subjects is that the conditions then exist as under no other circumstances for the analysis and study of the mental processes employed in them. Next to a knowledge of the subject-matter in a purely academic view, this is the most important element of a teacher's preparation for teaching the subject. If it is attempted to acquire this professional view of the subject some months or years after the academic work has been done, there is required a rethinking of a field of subject-matter that *has more or less faded out of memory and is wanting in that freshness and clearness characterizing it at the time of acquisition.* In addition, it may be claimed that the strongest logical association which knowledge has is with the process which acquired it; and it may be doubted therefore if a purely academic study of any subject ever results in the definite, clear, and comprehensive understanding that is given by adding to this the reflective consideration of the processes involved.

[1] Proceedings, N.E.A., 1890, p. 718f. My italics.

"The considerations adduced lead to the opinion that the normal school must enlarge its course to cover the academic field required by the teachers whom it educates, and that it must treat these subjects persistently in the light of the educational doctrine it holds and teaches . . ."[1]

His address in 1903 reiterates and amplifies in minor points the same views. It is especially valuable for its concrete illustrations:

". . . The general contention is that the student who is preparing to teach must think his thinking of the subject of instruction. He must know not only geography, but geography as a product of mind. The object of attention is enlarged by the addition of the processes of thinking the materials of the subject in their order of dependence and co-ordination. With the general student the object consists of these materials in their organization. The teacher adds the mental activity necessary to think these materials into this orderly whole. The position is not taken that the teacher is here to acquire a systematic, comprehensive, and technical knowledge of psychology, as such, by directing his attention to the activities of mind which are involved in the study of the various branches of learning. It is meant only that in studying any subject to acquire a teacher's knowledge of it, *a necessary element of the process is to see, by careful introspection, the nature and conditions of the mental activities engaged in it.* . . . What we call the method of teaching a subject is the psychology of that subject—the mind's necessary way of thinking it.

"Effort is here made to direct attention to the fact that *the most helpful psychology of any subject is to be acquired by the teacher in the mastery of the subject itself.* The psychology of the subject is not something brought to it from without and superimposed upon it. The teacher who will patiently take up the materials of any subject which he is required to teach and think long and closely upon the nature and conditions of the mental acts which he himself must perform in thinking these materials, will find not only that the subject has new educational significance to him, and that he occupies as a teacher a high vantage ground not hitherto known, but that he possesses new insights . . .

"Let us try to make clear by an illustration what is here urged as one element of the professional mastery of a subject. A teacher of English wishes to present to a class the idea of a sentence. His first inquiry is: What is the natural procedure of mind in coming into possession of this idea? Appeal is made to his own thinking of the subject. He reflects that the visible or audible words constitute a sentence because they express a judgment, and he sees that to make the idea 'sentence' something more than a formal definition, the nature of the judgment must be considered. His own idea of a judgment is general, deduced from a study of many particulars. He thus sees that his problem is to lead the mind of another in the construction of a general conception which has its verification to every mind in a multitude of particulars. He now knows, as he can never know in any other way, what the essential and necessary nature of this general conception is,

[1] Proceedings, N.E.A., 1890, p. 722f. My italics.

and how it alone can have reality and true validity to the learner. The method he verifies on the safest psychological grounds—his own conscious thinking of that which he would teach. The immeasurable superiority of this procedure over that of simply committing to verbal memory a formal definition of the sentence must be obvious . . .

"A teacher's knowledge of a subject of instruction, then, involves, in addition to a thorough mastery of the subject academically considered, a comprehensive and clear understanding of the mental activities which a knowledge of the subject presupposes, acquired mainly by a direct introspective study of the mind's working . . ."[1]

The theory thus set forth clearly isolates two requisites in the scholarship of teachers: first, mastery of "the method of the subject;" and second, a discipline of introspection going hand in hand with the process of mastering formulated subject-matter in its scientific organization.

Even without specific recognition, the first is a requirement probably at least implicitly met in all sound academic instruction. Such an implication is expressed in the early work of Dewey, as for example, in the following quotation:

"There is something wrong in the academic side of professional training if by means of it the student does not constantly get object lessons of the finest type in the kind of mental activity that characterizes mental growth . . ."[2]

The second requirement, however, is clearly a differentiating mark of the professional education of the teacher,—a requirement probably somewhat realized in the work of all successful teachers of teachers, and perhaps often sought as consciously as it undoubtedly was over a long period in the work of a group of teachers at Terre Haute, Indiana. Pursued in the thoroughgoing fashion demanded by President Parsons's exposition, it implies on the part of the teacher of subject-matter that

"the branch of study has become completely one with the life of the teacher, thus enabling him to turn his undivided attention to the interplay of mind with mind in the recitation . . ."[3]

[1] Proceedings, N.E.A., 1903, p. 547f. My italics. Cf. Bulletin Number Fourteen of the Carnegie Foundation for the Advancement of Teaching, p. 231.

[2] John Dewey, Third Year Book, National Society for the Scientific Study of Education, 1904, p. 22.

[3] Howard Sandison, The Contribution of Pedagogical Training to the Qualifications of the High School Teacher, 1904, p. 6.

The application of the doctrine may be facilitated by the teacher's possession of an ingrained theory of the learning process. It seems that there may have been such a theory at Terre Haute; and what it was is perhaps set forth by Howard Sandison in his interesting but little known treatise on method,[1]—a book bearing a certain impress of the influence of Hegel, and launching its exposition with a statement of William A. Jones's "doctrine of method:"

"The fact in the thing; the law in the mind; the method in both;"[2]—

a cryptic phrasing of relationships which had somehow come to be meaningful in the middle-west, and which recurs in the language of those who responded most readily to President Parsons's argument. No necessary connection is apparent, however, between the "doctrine of method" thus "compactly stated" by William Jones and unfolded by Sandison, and Parsons's doctrine of the unique importance of the prospective teacher's analyzing the mental processes involved in his mastery of subject-matter.[3]

In the 'nineties the essential doctrine of Parsons appeared clearly in the work of Arnold Tompkins, also an early student at Terre Haute. Like Sandison he quotes the words of Jones; and to the same purport as Parsons he expounds the special treatment of subject-matter,—adding, however, an illuminating retrospect:

"It is interesting and suggestive to note what disposition professional schools have made of the two factors in the teaching process. The two parts of the teacher's preparation—psychology and the academic studies—have been recognized; but not recognized as factors of the process. Psychology was taught as high school psychology; and the academic studies were taught to give the teacher more knowledge of them than his pupils possessed; but of the same kind. Aside from these, and constituting the strictly professional part of the work, the external process of instruction in the form of devices was considered along with school organization and management. The study of the external machinery had first professional recognition. Then we began to hear of educational psychology, and applied psychology; suggesting at least a vague feeling that there must be a difference between pure psychology and a teacher's psychology.

"At this stage of professional development in the normal school the academic subjects were held not to be professional, and were taught only to

[1] Howard Sandison (vice-president, Indiana State Normal School), The Problem of Method, 1904.

[2] Sandison, op. cit., p. 5. W. A. Jones was the first president of the Indiana State Normal School,—1870–79.

[3] See p. 83.

enable the teacher to secure license. . . . Presidents of normal schools deplore [d] the humiliating necessity of having the common branches in the course. . . . But these schools must always teach the academic studies, not, however, as academic, but as educational instruments. The teacher must not only know the subjects as such, as a high school pupil knows them but must have that reflective knowledge of them which results from the analysis of his processes as he constructs those subjects. To discard this intimate knowledge of the concrete process of teaching, which only a most searching analysis of the subject can yield . . . is to assume that the teacher, in his preparation, reverses the accepted theory of education and proceeds from the general and abstract to the particular and concrete. It is in accordance with the law of all learning for the teacher to trace the concrete process of learning and teaching in the particular subjects before making his broader generalizations. . . . It would be risking much indeed to equip the student with educational theory in the abstract and expect him to reduce his theory to the concrete working point in each of the subjects he is to teach . . ."[1]

It is interesting to note that in the Semi-Centennial History of the Illinois State Normal University, the account given of the influence of President Tompkins on the school at Normal, Illinois, though containing no explicit reference to any effect of the doctrine under consideration, nevertheless probably clearly enough implies its application.[2]

Various reflections of the address of President Parsons appear in the Proceedings of the National Education Association for 1888. His central idea appears in only four of them. In all of these, however, it is quite evidently appreciated. President S. S. Parr expounded the central idea afresh and reached the significant conclusion that

"The distinction between academic knowledge of subjects and teaching knowledge of them is vital. If it does not exist, there is no reason why the preparation of teachers should not be turned over to colleges and their chairs of didactics . . ."[3]

It is significant of relationships that President Parr employs in his argument the compact phrasing of William A. Jones above alluded to. President Baldwin seized the idea of intro-

[1] Arnold Tompkins, The Philosophy of Teaching, 1894, pp. 82f.

[2] Semi-Centennial History of the Illinois State Normal University, p. 62, item 2: "Instruction in special method united with the instruction in the subject matter of the branches." This at least afforded the opportunity to subject the prospective teachers to the discipline of analyzing the processes involved in their own mastery of the material.

[3] Proceedings, N.E.A., 1888, p. 469.

spection,[1] and Irwin Shepard in discussion of the papers of Parr and Baldwin uttered the following sagacious comments:

"Academic work should not be cut off from the normal [school] system. To do so would be to make the professional work theoretical and devoid of real art. Academic and professional work may be made coincident. It is a mistake to suppose that breadth of culture can not come without a study of the so-called higher branches. The demand of the times is for more professional work. We should be careful how we meet it. An addition of subjects called professional to the curriculum is dangerous, if unaccompanied by the true professional spirit that might be made to dominate work of a more humble name . . ."[2]

Cyrus Hodgin dealt with the value of introspection and the idea of "the method of the subject."[3] Less clearly indebted is the suggestive address of Lucy Washburn of San Jose, California, who by implication adds President Charles Allen to the group following the idea of the Terre Haute school:

"The mooted question is whether the academic and the technical parts of the teacher's preparation should be carried on simultaneously or in succession. . . . It does not follow that the scholastic and the professional should be . . . separated in the . . . normal school. There are strong reasons why they should go on together. The first is that good methods of teaching are best imparted in connection with good teaching. . . . Again, it is not [by] merely observing the good methods thus practically exemplified, that the pupil acquires them, but by having his attention definitely directed to the principles of teaching thus illustrated, while he is in condition to appreciate them most keenly. . . . Stopping after a pupil has mastered a subject, to discuss with him how he could teach it to others, I have always found to have a most elevating effect upon the spirit . . ."[4]

The fourth committee report on normal school curricula[5] quotes approvingly from the Terre Haute catalogue for 1887–8 a few paragraphs which set forth concisely the theory of President Parsons. The report in the same year, however, of the committee of the National Council grudgingly characterized instruction in the common branches as being "in a low sense, professional training."[6]

In passing, the inconclusive character of the successive committee reports from 1869 forward should be referred to. One

[1] Proceedings, N.E.A., 1888, p. 477.
[2] Proceedings, N.E.A., 1888, p. 479.
[3] Proceedings, 1888, p. 481f.
[4] Proceedings, N.E.A., 1888, p. 487.
[5] Proceedings, N.E.A., 1889, p. 570f.
[6] Proceedings, N.E.A., 1889, p. 395.

of the clearest of them, that of 1895,[1] reflects the divided mind of the normal school—wavering between two opinions. In the following excerpt note (by the device of reparagraphing) how the rival views succeed each other, as at the alternate nods of opposing champions. First, the committee states the question:

"Whether academic studies have any legitimate place in a normal or training school is a question much debated."

Then, *pro et con* follow:

"In so far as they teach common branches of study they are doing what other schools are doing and have small excuse for existence;

"but it may be granted that methods can practically be taught only as to subjects; that the study done in professional schools may so treat of the subjects of study,

"not as objects to be acquired, but as objects to be presented, that their treatment shall be wholly professional.

"One who is to teach a subject needs to know it as a whole made up of related and subordinate parts, and hence must study it by a method that will give this knowledge of it. It is not necessary to press the argument that many pupils enter normal and training schools with such slight preparation as to require instruction in academic subjects . . .

"Academic work in normal schools that is of the nature of preparation for professional work lowers the standard and perhaps the usefulness of such a school;

"but academic work done as a means of illustrating and enforcing professional truth has its place in a professional school as in effect a part of the professional work.

"He who learns that he may know and he that learns that he may teach are standing in quite different mental attitudes . . ."[2]

It is probably fair to say that the most obvious leaning of the committee was in the direction of Edwards and Parsons.

So far as the great associations are concerned, however, with 1903 substantially ends the record of the fate of the idea of having the learner analyze his own experience as a student in order to "sensitize him to the learning process."[3] It has persisted in the Indiana State Normal School, as the successive annual announcements attest. The following characteristic statement will illustrate:

[1] Proceedings, N.E.A., 1895, pp. 238–251.

[2] Proceedings, N.E.A., 1895, pp. 239–41.

[3] The Professional Preparation of Teachers for American Public Schools, p. 231.

"Recognizing the fact that the large per cent of the teachers in the state must necessarily engage in teaching the elementary or common branches, the State Normal School seeks to do these three things for such teachers: First, it seeks to ground such students as do not already possess this knowledge thoroughly in the common branches. These lie at the foundation of all learning and scholarship. They are indeed the 'fundamental branches of learning.' It is also true that the great majority of pupils in the public schools do not advance beyond these elementary subjects. If the state's system of common schools is to become what its founder designed it to be, it must be largely through the efficient teaching of these elementary branches. In keeping with this thought large provision is made for thorough, reflective study of these. They are not pursued as taught in a common elementary school. The student is required to possess the usual general knowledge of these subjects to be admitted. In the Normal School he is led to make a more critical and philosophical investigation of the facts and subject-matter than he has hitherto done. He now studies these subjects from a professional point of view, from a teacher's standpoint. His own method of studying them, and the method of presenting them appropriate to the different grades of the public schools, are themselves objects of attention and study.

"The whole presentation of the subject is surrounded by a pedagogical atmosphere which is altogether absent from the ordinary school . . ."[1]

From teachers now in the Indiana State Normal School and from students who have graduated from it at various dates in the past decade assurance has come that the work done in "special method" has always been characterized by the requirement of an introspective process in which the prospective teachers turn over their own experience as learners as a means of realizing the conditions of successful study:

"At one point in my course," writes Professor John B. Wisely, "I have the students write some such compositions as pupils in the public schools might be required to write, and then we turn around on this work and analyze the mental processes or steps through which the students go in writing such papers . . ."

And there is the following suggestion of its existence in the State Normal College at Kent, Ohio:

"A study of the elementary school branches from the viewpoint of the teacher with attention to the mental processes by which the pupil reconstructs this subject-matter."[2]

In both of these schools, however, the multiplication of courses in the various departments and the character of the course

[1] Catalogue for 1916–17, p. 19.

[2] Eighth Annual Catalogue, 1919–20, p. 44.

descriptions suggests that the professional point of view may have become somewhat theoretic; that they have yielded to the academic tendency.

Nearly seventy years after Stowe's address Professor Dewey, speaking of the dangers of sundering the study of psychology in normal schools from the prospective teacher's lay experience suggested

"prior practice in selecting and organizing the relevant principles and data contained within the experience best known to him, his own . . ."

To this advice he appended an explanatory footnote:

"It may avoid misapprehension if I repeat the word *experience*. It is not a metaphysical introspection that I have in mind, but the process of turning back upon one's own experiences, and turning them over to see how they were developed, what helped and hindered, the stimuli and the inhibitions both within and without the organism."[1]

The idea hardly appeared after 1904 in the critical literature of the normal school curriculum until 1920, when it was again brought prominently and with fresh convincingness into the foreground,—by the authors of Bulletin Number Fourteen.[2]

Probably the second subsidence of this fruitful idea was due to the factors that in the first instance prevented it from taking hold. The original tendency to separate instruction in methods from instruction in subject-matter was no doubt the largest factor. This probably inhered in the greater complexity of the process of applying a close-knit theory of the education of teachers, as over against the ease with which the liberal-arts technique could be continued. The general lack of a close-knit theory of the preparation of teachers and the universal absence of an integrated preparation for the teacher of subject-matter fostered the administrative practice of accepting for the instructors in

[1] John Dewey, Third Year Book, National Society for the Scientific Study of Education, 1904, p. 18.

[2] Cf., however, W. C. Bagley, Craftsmanship in Teaching, 1910, pp. 144f. It has been interesting to attempt to discover the genesis of this idea. To some its occurrence in a school notably interested in Hegel's philosophy has suggested Hegel as the nisus. In the opinion of Mr. Parsons this is an error. When a student at Terre Haute he heard W. A. Jones express, but never discuss the idea. Mr. Dewey was good enough to inform me that in his case the idea came from Mrs. Ella Flagg Young. On the same point a letter from Mr. Learned warrants the conclusion that the idea represents relatively independent solutions by gifted teachers facing the same problem.

subject-matter merely the usual qualifications implied by the liberal-arts ideal. The line of least resistance was followed,—for lack of a suffusing professional attitude. The persistence of the idea in the Indiana State Normal School from (probably) 1870 to the present time offers evidence as to the practicability of the conception. It may depend upon the permanence of a corps of teachers imbued with the idea and skilled in its application,—and this in turn upon the President's possessing the professional attitude.

In the meantime with the entrance of experimentalists into the field of the teaching of the common studies,[1] the idea had a rebirth. The accumulation by psychologists of technical knowledge of the learning processes involved in the school subjects enhanced the importance attached to this practice of directing the student's attention to his own concrete experiences as a learner. The following excerpts from Freeman, though they do not greatly enlarge the conception stated by various teachers in the 'thirties, have an authority that may not be granted to the earlier expressions:

"The art of the teacher is the far more delicate one of following the changes which take place in the mind of the pupil and of bringing to bear his influence upon them to produce the highest degree of improvement with the least expenditure of effort . . .

"It might be supposed that, having gone through the learning processes himself as a child, the teacher would have sufficient insight into their nature from his memory of his own efforts, without making any further study of them. This memory of one's early struggles, however, is not sufficient. In the first place, memory has become very dim with time. From great familiarity with the tasks which the child has to meet, one becomes subject to the illusion that they are easy, and that the only requisite for their performance is good-will . . .[2]

"A second reason why the teacher's early experience is not enough to fit him for the task of guiding the child in his learning is that the learning attitude and the teaching attitude are different. The learner is absorbed mainly in the result which he wishes to accomplish, and he does not make much analysis of the means by which he reaches his goal. . . . But the teacher must have the analytical attitude . . ."[3]

The undeniable gain to the profession from the psychologists' support of the theory of Stowe and Parsons has been somewhat

[1] E. B. Huey, The Psychology and Pedagogy of Reading, 1908, e.g.

[2] Cf., however, W. C. Ruediger, Education 27:178–9, who takes a different view.

[3] Frank N. Freeman, The Psychology of the Common Branches, 1916, pp. 3–4.

offset by the dualistic tendency in the organization of professional curricula. The accumulation of technical knowledge of the concrete processes involved in learning the school studies made an opportunity to shift responsibility for this phase of professional preparation from subject-matter teachers in general to specialists in departments of psychology,—a tendency, however, against which, as the next chapter shows, there is already a reaction.

Thus far two of the elements entering into the development of the conception of the professional treatment of subject-matter have been illustrated in some detail. So far as the records show, the force of this movement had largely spent itself by the close of the nineteenth century. Other elements than these two had entered into the idea of the teacher's knowledge in the meantime. They are reflected in the following summarizing statement made by President Thomas Kirkland in 1893 as a preliminary to another appeal for a "strictly professional" curriculum in the original sense of the term:

"When training schools were first established they combined academic work with professional training. This is the system still adopted in nearly all the normal schools of the United States. . . . In its support it is urged that it is impossible to get students with the required academic education on which to base professional training. In reply to this it is justly pointed out that the colleges, academies, and high schools have so increased in number and efficiency that training schools may now confine themselves to strictly professional work. But what constitutes professional work?

"Some of our best educational authorities hold that academic instruction is a necessary branch of normal-school work, and not something which under changed circumstances might be dispensed with. They consider that in teaching a subject due attention should be given to its rise and development as a factor in education; that an historical view of the subject should be given in regard to methods, as the best safeguard against a slavish copying of educational devices; that the educational value of the subject should receive attention; and that the subject should be considered in its coordinate relation to other subjects; that when academic work is done according to the foregoing, it becomes truly professional work . . ."[1]

Against this view he brought a fresh analogy,—one drawn from industrial organization: namely, the principle of the division of labor, according to which the academic studies should be left to college, academy, and high school, and the normal school should confine itself to "strictly professional" activities. The fallacy of the assumption lying behind this "self-denying ordinance with regard to subject-matter" was analyzed by Professor

[1] Proceedings, N.E.A., 1893, p. 410f.

Henry Johnson in 1903,[1]—at which time the vindication of subject-matter was apparently substantially accomplished.

The several elements of the teacher's knowledge which Mr. Kirkland brought together summarize the net gains of the conflict to that date. It will be convenient to abandon the chronological order of exposition at this point and take up the survey from the vantage of the present situation, reaching back at need to the records for whatever they can supply.

[1] Proceedings, N.E.A., 1903, p. 578f.

CHAPTER III

THE PRESENT SITUATION

I. Supplementation of the Historical Study

1. Sources of Information.

What are the means of knowing to what extent professional schools for teachers today differentiate their work from that done in schools of general education? Their failure to do so in the past, or, at best, the very incomplete and sporadic success of their efforts, has been shown. Has the situation perhaps radically changed in the last decade? The most competent students have not thought so. The "*Curricula Designed for the Professional Preparation of Teachers for American Public Schools*" were a response to the unsolved problems of differentiation. Themselves the work of one well acquainted with the normal-school situation in the United States, they were before the first edition

> ". . . examined and revised in part by small groups of competent critics who are conversant with the problem in different sections of the country . . ."[1]

Bulletin Number Fourteen of the same Foundation, *The Professional Preparation of Teachers*, gave in 1920 for one state, regarded as "typical,"[2] a decidedly negative answer to the question. The seven published pamphlets covering the results of the "self-survey" conducted between 1917 and 1920 by the faculty of the Colorado State Teachers College[3] offer positive testimony to the same purport for another teachers college. How may the findings of such studies be supplemented to make sure that the

[1] Henry S. Pritchett, Introduction to the Curricula Designed for the Professional Preparation of Teachers for American Public Schools, Carnegie Foundation for the Advancement of Teaching, 1917.

[2] The Professional Preparation of Teachers, p. 20.

[3] Bulletins series XX, Nos. 5 to 9; series XXI, Nos. 3 to 5, Colorado State Teachers College, Greeley, Colorado.

results actually describe a situation typical as regards the treatment of formulated subject-matter?

Obviously the most satisfactory way would be to undertake prolonged personal visitation of a representative group of schools, —a method impossible, however, to any but the most privileged investigator. The questionnaire method was considered, but rejected because it seemed that the kind of information chiefly desired could be had in sufficient quantity, of sufficient reliability, from the descriptions of courses printed in the annual announcements of the schools, supplemented by personal conferences with graduate students representing normal schools from all parts of the United States, and by correspondence with normal school teachers in the field. The concern of the investigation was with the types of treatment given to subject-matter, especially with the variations from the traditional patterns of normal school courses, and with the organization of instruction,—neither of which, without imposition, could be much more satisfactorily explored by questionnaire than by study of the printed descriptions of courses. From the annual announcements certain relevant data are always obtainable. The gross solution of the problem of the relation of methods to subject-matter, for example, could hardly fail to be revealed. Either the schools separate them or they attempt in some way to combine them; they are given in one course or in two; they are taught by one teacher or by two; if by two, they are either in the same department or in different departments; if two courses are given one must come first; if more emphasis is placed on one than the other, it appears in the time allotment; and if significant variations from the traditional types of treatment occur it seemed likely that they would be fairly well represented in the descriptions given in a random sampling of a hundred schools. Only upon the last point would a questionnaire have been able to add appreciably to the data available in the annual announcements. In this case personal letters to a selected group of teachers were used to supplement the study of course descriptions.[1] An additional reason for confidence in such a method, even without the supplementary data of the letters and conferences, is to be found in the fact, already abundantly shown, that professional schools for teachers have always operated under criticism, which has made them somewhat sensitive. Very often they explicitly state their educational

[1] See p. 109f.

creed, explain their theory of teacher preparation, attempt to justify peculiarities in their courses or organization, describe their peculiar claims to the prospective students' consideration, quote authorities for a given procedure, and the like. In this respect the annual announcements of normal schools and teachers colleges differ significantly from those of liberal arts colleges. The course descriptions quoted later in this chapter will somewhat illustrate these characteristics.[1]

It was chiefly information of the order described that was needed for this study; so the annual announcements of 1921 for one hundred normal schools and teachers colleges were examined to see what light they threw upon the handling of the old question of the relation of subject-matter and methods, and what were the types of treatment given to subject-matter courses. Since so large a proportion of the students in schools for teachers take only a two-year curriculum, and since the elective principle is somewhat admitted into their work, the investigation was restricted to the required courses in two year curricula. Four subjects were examined: namely, grammar, arithmetic, geography, and history. In the first, the clear tendency to combine grammar with composition, word study, or literature and the impossibility of determining in most such cases what was done with grammar led to the exclusion of all but the more distinct or purely grammar courses.

Taking, in the alphabetical order of states, the annual announcements for 1921–22 of one hundred schools, each was examined to find the amount of time given to each of the four subjects mentioned, and the type of treatment given to the material. Reference has already been made to the variations in the amount of time given to the studies, and to the fact that typically subject-matter is taught first, then methods.[2] The central concern of the investigation was with the types of treatment given and especially the modes of variation. The results of the investigation are

[1] For other data see the annual announcements, 1921, for the following widely scattered and representative schools, e.g.: Livingston, Alabama; Richmond, Kentucky; Trenton, New Jersey; Brockport, New York; Bellingham, Washington; Greeley, Colorado; Superior, Wisconsin; Warrensburg, Missouri; Mankato, Minnesota; Mt. Pleasant, Michigan; Natchitoches, Louisiana; East Radford, Virginia; Terre Haute, Indiana; North Adams, Massachusetts.

[2] Chapter I, p. 12.

summarized in tables I and II following. A brief preliminary exposition will aid in interpreting them.

1. Four types of treatment were disclosed:
   a. "Review" courses, in which the focus of effort is upon the restudy of the actual materials of the elementary school.
   b. "Methods" courses, in which attention centers upon the problems of a teaching organization and technique.
   c. "Advanced academic" courses, in which the upper reaches of the studies mentioned are presented with attention limited to the mastery of the material.
   d. Advanced courses in subject-matter characterized by the inclusion of topics tending to give a professional turn to scholarship, or to affect technique, or both.

   This type varies in clearness of definition with the different subjects and schools. It is least distinct in history, where in many cases only a vague tendency can be discerned in the course-descriptions and warrant for the classification needed the support of supplementary statements.

2. In the first two types there are numerous variations showing on the part of "reviews" a distinct tendency both toward the incorporation of "professional" elements and toward a more liberal range of subject-matter; and on the part of "methods" an equally clear tendency toward the inclusion of liberalizing elements. As suggested earlier in the discussion, under either of the captions either emphasis may actually prevail.

The pure type of reviews is illustrated in the following citations:

"Advanced grammar: Course designed especially for teachers. The more difficult points of seventh and eighth grade grammar are taken up at length. Includes also a drill on punctuation and common errors in speech."—Macomb, Illinois.

"Review of the arithmetic of the elementary school: Several weeks at the beginning of the term, and portions of each period for the rest of the course, are devoted to a review of arithmetic. This includes first, the analysis and solution of problems of all types used in the elementary school; and secondly, extended drill in computation."—Trenton, New Jersey.

"Methods in Arithmetic: This course consists primarily of a review of the topics studied in the elementary school. Very little direct instruction in methods of presentation is given but it is expected that the pupils will observe those methods used in the class. Throughout the course drill in the four fundamental operations is emphasized and special attention is paid to methods of increasing efficiency in computation. Necessarily all topics

can not receive equal emphasis; among those to which especial attention is given are common fractions, denominate numbers, mensuration, and percentage with some of its application."—Brockport, New York.

From this type variations are numerous. The following are illustrations.

"Arithmetic: This course gives a thorough, rigid, but professional review of the subject-matter of arithmetic."—East Radford, Virginia.

"Arithmetic: This subject includes a review with emphasis on accuracy, economy of effort and time, and logical analysis; a study of educational values and aims in arithmetic, and of present demands and tendencies. The intention is to give prospective teachers a grasp of the subject as a whole, with practical suggestions as to modes of presentation in the grades . . ." Moorhead, Minnesota.

"Arithmetic. Part I. A review of arithmetic giving special attention to the work of grades 5 to 8. Part II, History of arithmetic and arithmetic teaching, discussion of textbooks, modern tendencies and movements in arithmetic teaching, such as 'standardization,' and definite observation of work in the grades and the making of lesson plans."—Superior, Wisconsin.

"Geography for teachers: This course includes a study of the fundamental principles of geography and the application of these principles to life. Considerable time is given to a study of the subject-matter of geography taught in the grades with methods of presentation, use of maps and illustrative materials. A study of the scope and aims of geography, physical environment and life responses, minimum essentials, the preparation of special reports and the development of a course of study form an important part of the work. Acquaintance is made with sources of materials, manuals, reference books, readers, exhibits, and their use."—Lewiston, Idaho.

"Methods Review of Arithmetic: In this course considerable time is given to a review of the fundamentals in the essential arithmetical processes. A study is made of the various difficulties for the learner which are inherent in the subject, and of the methods of dealing with these difficulties . . ."—Minot, North Dakota.

The character of methods courses is shown in the following citations:

"Methods in grammar-school arithmetic for teachers in elementary schools: The aim of this course is to point out the aims, methods, and means of teaching arithmetic in grammar grades. Model lessons are observed in the training school as a basis for classroom discussions. Much time is devoted to the working out of lesson plans and to developing power to question logically."—Hyannis, Massachusetts.

"Geography: A consideration of the aims, phases, and methods in geography, its relations to other sciences, the selection and arrangement of material for the course of study in this subject. Observation and discussion in the work in geography in the model school is a vital part of the work in this course."—Macomb, Illinois.

"History. Method and Subject-matter in the upper grades: This course deals with the scope and limitations of the subject, the aim and purpose of history instruction, the organization of subject-matter, the use of bibliographical arts, criticism of texts, and the relation of history to other subjects."—Macomb, Illinois.

Here, too, variations are numerous. The following will illustrate tendencies:

"Methods in arithmetic: The racial development of the fundamental phases of arithmetic; modern scientific investigations in arithmetic, approved methods of teaching the various topics in arithmetic, methods of eliminating waste in teaching arithmetic, present tendencies in arithmetic, standard tests in arithmetic; emphasis upon both content and method."

—Natchitoches, Louisiana.

"Arithmetic in the grades: The origin and meaning of number and its development in the race and child experience. The essential processes in number relations and their relative importance. Interpretation and meaning of general 'rules.' A rational course of study based on the child's experience and needs. Discussion of present topics and methods. Criticism of present 'examples.' Criticism of tests. Study of typical examples with criteria for judging. Observation and discussion of lessons in the Training School."—Macomb, Illinois.

"The Teaching of History in the Elementary School: The history of history instruction in schools; the courses of study past, present, and projected for the future, covering both elementary and high schools; methods and materials for the elementary grades; testing results; and school problems related to history such as the place of history in the curriculum, and the relation of history to other subjects."—Greeley, Colorado.

"Methods of Language, Grammar and Composition: (1) A complete review of the principles of English grammar: (a) Parts of speech, (b) Inflections, (c) Syntax. Especial emphasis is laid on the constructions of the infinitive and the participle, and intensive drill in sentence analysis with particular attention to subordinate clauses. (2) A resumé of the History of the English Language—taking into account those characteristics and tendencies that have been dominant in the development of the language, with explanation of their origin, so far as possible. (3) A discussion of modern methods of teaching English grammar; (a) Early methods of the teaching of grammar,—[their] character [and] results; (b) Aims governing present day teaching; (c) Common methods in vogue at present; (d) The lesson plan in English grammar; (e) Exercises in teaching specimen lessons, by members of the class; (f) False syntax and the correction of errors of speech; (g) Drill in enunciation; (h) Oral English,—drill for correct enunciation, for modulation of voice and for intelligent expression both in speaking and reading."—Brockport, New York.

The advanced academic courses, which are numerous, hardly need illustration, but the following are cited:

"History: Since an understanding of History is essential to an appreciation of Literature and to an intelligent citizenship, the aim of this depart-

ment during the earlier years of the course is to give a general knowledge of the growth of civilization and the development of institutions, especially those of England and the United States. The Senior course will be devoted to special work in United States History, while the Graduate course will embrace the social, industrial, religious, and political history of the Nineteenth Century. In order to accomplish these ends, the following course with supplementary reading has been adopted:

English History, . . . U. S. History. History of Ancient, Medieval, and Modern Times. Special Advanced work in U. S. History and the progress of Civilization in the Nineteenth Century."—Troy, Alabama.

"General Geography: The purpose of this course is to acquaint the student with the general principles that are applied in the study of the geography of a region. The elements of location, area, climate, relief, rocks, minerals, soils, coastlines, waterways, etc. are considered from the standpoint of their influence upon economic and social conditions, and upon the distribution of people. The work is based upon the study of specific regions."—Kalamazoo, Michigan.

The fourth type, described as "advanced studies of subject-matter containing elements tending to professionalize the work" is illustrated in the following citations:

"English Grammar: The aim of this couse is to give the mature student a broader view of the scope and power of grammar as the science of language, and to impress upon him the great social and ethical needs of expression and communication as fulfilled through language. Through an outline study of racial evolution and growth, the student is led to see the evolution and growth of thought into the sentence."—Moorhead, Minnesota.

"History and Social Science: To bring the student into close contact with the great masterpieces of historical writing and to acquaint the future teacher with the material available for making the past real. Reading in standard histories and biographies and in suitable 'sources' with discussion of ways of using this material in the first six grades . . ."

—Salem, Massachusetts.

"History methods: A background of professional work which treats of aims in teaching history, selection and organization of material, use of sources, maps, collateral reading, and illustrative material. Especial attention is given to courses of study for elementary schools and for junior high schools. Some block of modern history is studied as intensively as time permits."—Whitewater, Wisconsin.

"Advanced arithmetic and methods: . . . Not a review of grade arithmetic, but an advanced course which gives teachers a broader and more comprehensive view of the science and history of number development together with material for classroom use. A historical survey of our system of numbers and measures, and relations of numbers. Fundamental principles, their applications and interrelations. Unification and correlation of subject-matter. Graphs."—Emporia, Kansas.

"Principles of Geography: This course first defines the content and field of geography in order to get the point of view of modern geography, after

which a study is made of the influence which physical environment has upon the affairs of man. The course is fundamentally academic in its content but is professional in its organization of subject-matter, point of view, and the familiarity which it gives with geographical materials . . ."

—Mt. Pleasant, Michigan.

"English Grammar: The purpose of this course is to prepare for efficient teaching of English grammar in the high school. It gives not only a new view of English grammar, but also stresses the logic of grammar and the history of English sentence structure as they combine to explain the numerous peculiarities which mark the language today."

—East Radford, Virginia.

"Teachers' Arithmetic: This course is designed to cover the entire subject of arithmetic. The pedagogical phase of the subject will receive as much attention as the academic phase."—Murfreesboro, Tennessee.

With so much by way of preliminary explanation and illustration the following summarizing tables are presented.

It will be useful to call attention to the probable implications of the facts displayed in Table I. Looking at the proportion of courses in each study which fall in the "review" and "advanced academic" groups, the liberal-arts tendency is clear. It is still clearer when the liberalizing effort of the fourth type of course is considered. Aside from the bearing of reviews upon the efficiency of teachers, the professional tendency may be said to be represented in the methods courses and in the "variant" elements which have entered into both the review and the advanced subject-matter courses of the fourth type.

The especial concern of this study is with these "variant" elements—what they are and what ends they serve. Before discussing them, however, it will be proper to indicate some questions which can not be answered on the basis of such data as are here summarized. For example, consider the extent to which the tendency to vary obtains in the different types of course. In reviews, arithmetic is the most prone to vary from the type, grammar next, then history, and last of all geography. Geography is most stable? or least touched by the professional leaven, or most complex and the students least well-equipped? Probably the last two. Grammar has so long been under fire of criticism that adaptation has been conscientiously sought? It might well be. The materials for professionalizing arithmetic are abundant, thanks to the work of teachers like Professor Cajori, Professor D. E. Smith, and others; and the references to Professor Henry Johnson's compact treatise on the teaching of

TABLE I.—THE TYPES OF TREATMENT GIVEN TO EACH OF FOUR ELEMENTARY SCHOOL STUDIES IN THE REQUIRED COURSES OF ONE HUNDRED SCHOOLS FOR TEACHERS IN 1921

Type of course found	Distribution of the four studies over the types of course, with the per cent of variations from the type in each study								
	Gram mar	Varia-tions	Geog-raphy	Varia-tions	History	Varia-tions	Arith-metic	Varia-tions	Percent of variations
Review of elementary material (academic)	21	33%	10	20%	15	26%	29	41%	33%
	..	(7)	..	(2)	..	(4)	..	(12)	
Methods in elementary material....	13	53%	57	17%	34	38%	58	24%	26%
		(7)		(10)		(13)		(15)	
Advanced academic study in the subject.....	15	....	52	....	16	....	12		
Advanced study of subject matter but including items tending to professionalize it.	9	....	13	....	16	....	7	(45)	
Totals.....	58	(14)	132	(12)	81	(17)	106	(27)	377

history leave no doubt of its influence. Here is at least a plausible explanation for the tendencies of two of the subjects.

In the methods group it is grammar that varies most frequently, then history, then arithmetic, geography again coming last. Though grammar has apparently a greater affinity for reviews than for methods, the tendency of the methods courses to vary from the type is much greater. A plausible explanation is that the academic character of "pure" reviews, representing standardized material and well-established procedures, is the line of least resistance, while the methods courses reflect the current dissatisfaction with the results of grammar teaching and have a motive for exploration. The references to the work of Henry Johnson in history and of D. E. Smith and others in arithmetic lead to the inference that the existence of a body of suggestive literature is an important factor in the variations in these subjects; and the fact that although there is a considerable body of material on the development of geography and on the history of geography teaching it is (and especially the latter) still inchoate as compared with the other two subjects,—this may explain the position of geography.

In the "advanced academic" group the order is geography, grammar, history, and arithmetic. Availability for college credit is doubtless a factor in this case.[1]

It is the fourth group, however, that especially concerns this study. It represents both the spirit of scholarship, and the professional attitude. It represents also an abiding dissatisfaction with both review and methods courses, and (more or less blindly, no doubt), an effort to secure the major values of both: to escape the close horizons of reviews without losing their values of relevance to the work of the teacher; to avoid the aloofness of the advanced academic courses without sacrificing their liberalizing effects; and (even less certainly) to achieve certain values of the methods courses. In a sense these courses are intermediate between liberal-arts courses and methods courses. Out of three hundred eighty-three courses examined forty-five appeared more or less clearly to belong in this category, —roughly, one tenth. To the teachers responsible for the thirty most suggestive courses in this group careful, personal letters were sent inquiring about the organization of instruction in

[1] See, e.g., the comments in the Report of the National Council of English Teachers on English in Normal Schools, English Journal VII, pp. 31–32.

TABLE IIa.—THE DISTRIBUTION OF VARIANT ELEMENTS
Variant elements applicable in the treatment of any subject

Subject and type of course	Present aims and practices	History of the subject	Evaluation of textbooks	Development of methods	The literature of the subject	Educational values	Exercises in making courses	Psychology of the subject	Standard tests	Specific difficulties	Comparison of courses	Principles of selecting materials	Inductive study of need	Moot questions	Preparation of materials	Totals
Grammar																
Review	0	1	3	0	0	0	1	0	0	2	0	0	0	0	0	7
Methods	0	1	2	1	0	0	1	2	0	1	0	0	0	1	0	9
Advanced professional	0	4	1	3	1	0	1	1	1	0	0	0	2	1	0	15
Geography																
Review	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Methods	5	0	0	0	4	2	3	0	0	0	1	1	0	0	1	17
Advanced professional	7	1	0	0	2	5	0	0	4	1	0	0	0	0	1	21
History																
Review	3	0	2	1	1	1	0	1	0	1	0	0	0	0	0	10
Methods	7	0	4	0	2	0	3	0	0	1	1	1	0	0	0	19
Advanced professional	4	1	2	2	3	3	1	0	0	2	0	2	0	0	0	20
Arithmetic																
Review	3	5	4	3	1	1	0	4	3	0	0	0	0	0	0	24
Methods	2	5	2	7	1	0	0	3	3	0	1	0	0	0	0	24
Advanced professional	4	4	0	1	0	0	2	0	0	0	2	0	0	0	0	13
Totals	36	23	20	18	15	12	12	11	11	8	5	5	2	2	3	183

these courses and about the purpose of the differentiating topics which they included. Twenty-two of them replied with detailed information, which will be drawn upon later.

The next step is to make clear the character of the variations from the traditional types of courses. Tables II*a* and II*b* marshall the facts disclosed by a close examination of three hundred eighty-three courses in one hundred schools and show their distribution over subjects and types of course.

TABLE II*b*.—VARIANTS PECULIAR TO THE SUBJECTS

Subject and type of course	Corrective English	Logic of the sentence	Study of idioms	Word study	Comparative grammar	Study of terminology	Development of language	Exercises to develop historical method	The rationale of the processes	Total
Grammar										
Reviews	8	1	0	2	0	0	1	...	...	12
Methods	1	0	0	..	0	2	0	...	...	3
Advanced professional	3	3	3	..	2	0	2	...	...	13
Geography										
Reviews	..	..	..	..	..	..	..	...	...	0
Methods	..	..	..	..	..	..	..	...	...	0
Advanced professional	..	..	..	..	..	..	..	...	...	0
History										
Reviews	..	..	..	..	..	..	..	...	...	0
Methods	..	..	..	..	..	..	..	1	...	1
Advanced professional	..	..	..	..	..	..	..	5	...	5
Arithmetic										
Reviews	..	..	..	..	..	..	..	...	1	1
Methods	..	..	..	..	..	..	..	...	2	2
Advanced professional	..	..	..	..	..	..	..	...	4	4
Totals	12	4	3	2	2	2	3	6	7	41

Twenty-four topics cover the "variant" elements. In three hundred seventy-seven courses they appear in varying proportions two hundred twenty-four times,—fifty-eight times in reviews, seventy-five in methods, and ninety-one in the advanced courses. There are seventy-five review courses, one hundred sixty-two methods courses, and forty-five of the advanced courses of the fourth type; it may be said, therefore, that the fourth type of course represents the present growing point. Its index of variability is roughly 2.0, that of the review courses roughly 0.77, and that of the methods courses roughly 0.46. *Clearly, then, it is*

from the subject-matter position that the professional school for teachers is today shaping its instruction.

Turning now to the "variant" factors themselves, consider what they are and which are apparently most favored. For the sake of suggestiveness they have been thrown into two groups:

1. Those which might be utilized in instruction in just any subject: Table II*a*.

2. Those which reflect the peculiar problems of particular subjects: Table II*b*.

What is the significance for prospective teachers of such knowledge as topics like these involve? and is the current emphasis that which bears most usefully upon the present situation?

The discussion may take some advantage from a rough classification of the several points of emphasis. With considerable possible overlapping the several items fall into three classes represented by the terms scholarship, technique, and professional intelligence.

1. In the scholarship group may be placed the items dealing with the history of the subject and the literature that may be drawn upon for the illuminating and vivifying effects of wide margins of relevant knowledge.

2. In the technique group belong such items as the psychology of the subject, the special difficulties with which its mastery confronts the learner, standard tests, and the preparation of materials.

3. In the group contributing especially to professional intelligence belong such topics as the discussion of present aims and practices, the development of methods, educational values, the evaluation of textbooks, the comparison of courses, principles of selecting materials, exercises in course-making, and inductive studies of the pupils' needs.

It will be convenient, however, to follow in the discussion the order of frequency of the topics.

II. Discussion of the Tendencies

1. The prevalence of instruction upon "present aims and practices" in the organization and teaching of the school studies has undoubted warrant in the professional purposes of teachers colleges. In the interest of efficiency prospective teachers should know the system in which they are to work,—its ideals and practices.

It does not inevitably follow, however, that in their treatment of this item the schools for teachers seek mainly to adjust the prospective teacher effectively to the existing system. It could, as in the past it often did, imply indoctrination with the most recent proposals.[1] The ideal of exercising leadership is attractive to vigorous teachers colleges and is occasionally expressed in terms that suggest an over-emphasis upon the need of reconstruction in the public schools. The dangers involved in an organization of instruction upon this view of the function of the professional school are perhaps as great as the need of public school reform. Aside from the temptation to indoctrinate prospective teachers there is the undoubted danger of developing a hyper-critical attitude toward existing practices, which would reduce the service of the professional school by incurring on the one hand the distrust of public-school teachers and administrators and on the other by unwisely and unnecessarily complicating the problem of its graduates, who after becoming imbued with the most "up-to-date" ideas of the organization of material and of practices in teaching it, find it necessary to utilize what one school mentions as the "older methods." The process of reconstruction which the graduate then faces, however wholesome the in-service education provided by public school supervision may be, might operate toward creating a breach between the professional school and the public school-leaders.

While it is possible that the topic under discussion may frequently involve these dangers of unbalanced advocacy, the fact that subject-matter teachers are considering the treatment of such items as a part of their responsibility warrants the belief that the tendency is actually in the direction of giving a measure of poise and balance to prospective teachers. The sources of the materials for the treatment of the topic are both historical and contemporary; but the subject-matter teacher is perhaps likelier to seek his ideals in the history of teaching-practices in his own subject than in new emphases of current educational theory; and though he may therefore incline toward conservatism in regard to new methods, there is a strong probability that his perspective will be both liberalizing to him and wholesome in its influence upon his colleagues and his students. His undertaking definite instruction upon present aims and practices in the organ-

[1] See, e.g., President Charles Allen's complaint, Proceedings, N.E.A., 1888, p. 497; and W. C. Bagley, Craftsmanship in Teaching, p. 77f.

ization and teaching of his subject is at least a promising recognition of the professional obligation of the teacher of teachers. He must be concerned not only with the growing points of scholarship in his field, but also with the current thought in regard to the school use of his subject.

2. The topic of next greatest frequency, "the history of the subject," though an old one in the development of normal school instruction, has recently[1] been invested by the authors of Bulletin Number Fourteen with an altogether fresh significance as an item in the realization of a fundamental theory of education.[2] Particularly incisive have been the pronouncements of W. C. Bagley upon this item. From his numerous discussions of the topic the following may be taken as especially illuminating:

"Would it not?" he asked in 1920, . . . "Would it not make a difference to the teacher who is struggling with a first-grade reading class to have at least in the background of her mind the fact that she is passing on one of the two or three most precious possessions of humanity? And if the fourth-grade teacher finds the teaching of long division a fairly difficult test of her skill, would it not help her, to know that long division represents an achievement of no small magnitude in the development of the race? . . . that even brilliant mathematicians struggled for generations with cumbrous cancellation methods before this relatively facile process was ultimately perfected? Would it not help every teacher to gain some glimmer of the priceless character of the materials with which he deals? . . ."[3]

Such an attitude implies a perspective over the development of the subject. Mr. Bagley in the foregoing quotation has suggested if not the chief, at least one of the most important uses to which this topic lends itself. It is a rich field for scholarship to exploit in the interests of illuminated teaching. Its value was vaguely felt in the 'thirties,[4] and the 'fifties;[5] and between 1855 and 1865, President J. P. Wickersham of Millersville, Pennsylvania, turned his attention to it as one avenue for the development of normal school instruction:

"If we could determine the process by which it [i.e., our present knowledge of each subject of study] was obtained," he thought; "how it grew up in the

[1] It is foreshadowed in various early addresses of W. C. Bagley. See, e.g., Craftsmanship in Teaching, 1909, p. 112f., p. 157; p. 160.

[2] See Carnegie Foundation, Bulletin Number Fourteen, The Professional Preparation of Teachers, especially pages 149f., e.g.

[3] Lectures on the Technique of Teaching.

[4] American Institute of Instruction, 1833, p. 305.

[5] See, e.g., Edward Mansfield, American Education, 1850, pp. 224–225; 243–245.

mind, a great step would be taken in ascertaining a correct method of teaching it . . ."[1]

With this in mind he made an effort to give an outline of the genesis and growth of each school subject. It would appear that even the meager sketch that he achieved ought somewhat to have dignified the school materials for the teacher. The idea recurred from time to time. Charles DeGarmo reannounced it in 1887,[2] and in 1889 William T. Harris fitted it into his conception of the ladder of human civilization which the child was to mount:

"The ideal normal school," he said, "would teach each branch in its relation to all human knowledge. . . . The teacher needs to understand the genesis of each branch he teaches, in order to comprehend clearly the limitations of the child's grasp of the subject, and be able readily to see the difficulties the child is to encounter . . ."[3]

In 1893 President Thomas Kirkland, touching upon the issue between academic and professional views of the curriculum implied that this element was fairly well agreed upon by those who insisted upon scholarship.[4] David Eugene Smith in 1903 explicitly required it in the professional education of teachers of mathematics.[5]

In a number of the course descriptions analyzed it was apparent that more than casual attention was given to the historical development of the subject. Letters were sent to these teachers for the sake of learning for what purposes they treated such material and something of the organization of the instruction. Replies were received from all of these. The following excerpts are informing:

"The historical material, which is always highly interesting, is used as a stimulus to the students, as a means for them to use in their own classes later for the same purpose, to give reality to the work,—as in weights and measures,—and to point out difficulties which have arisen in the development of the subject as well as suggestions for overcoming them. . . . This material is woven into the treatment of each topic as it arises in the course. . . . Under each topic are studied the historical references, the problem of subject-matter, as well as the methods of presentation and the provision of material for class use later. I have found by several years'

[1] Method of Instruction, 1865.
[2] N.E.A. Proceedings, 1887, p. 491.
[3] N.E.A. Proceedings, 1889, p. 397f.
[4] Proceedings, N.E.A., 1893, p. 411.
[5] Proceedings, N.E.A., 1903, p. 558.

trial that this combination produces the best of results. Much of the staleness is taken from problem-solving, the big thing is studied in each situation in place of mere devices, the method work is made really educational, and uppermost is always held the inculcation of a professional spirit which will stimulate the teacher to carry on what Professor Bagley calls in-service education.'"[1]

Four points in the foregoing statement are especially worthy of attention: First, the pointing out of difficulties that have arisen in the development of significant phases of a subject enchances interest. It does this partly, as Mr. Lindquist suggests, by taking away the "staleness" of mere problem-solving; it gives what Mr. Bagley has called "new views" in contradistinction with "reviews." It could hardly fail to generate respect for the "elemental materials." Second, it offers suggestions in the overcoming of difficulties that arise in the teaching of the subject. This was the original purpose of such material.[2] Third, the retrospect is accomplished not by taking up the historical matter as *a separate unit of material*, but by reaching back for it at the time when it is most pertinent,—a procedure which needs no defense, but which requires an unique scholarship on the part of the teacher. Such an organization of instruction is the best safeguard against the danger, sometimes suggested, that such material is likely only to add to the burden of the learner. It seems likely that the danger is real only with the academically-minded teacher. The fourth point suggests a second objection sometimes raised in connection with the attempt to give teachers a perspective: namely, that prospective teachers will attempt to teach whatever they are taught, and that much of the historical material is clearly inappropriate for children. In the illustration given in the excerpt, the objection would apparently have little weight. It would doubtless apply to a good deal of material that might be exceedingly illuminating to teachers. That, however, is a problem for the teacher of teachers to solve. Is the danger greater than that incurred in teaching the calculus to arithmetic teachers?

Other excerpts will illustrate variations in the use of the historical material in arithmetic:

"This course gives some attention to the racial development of the fundamental phases of arithmetic in order to add to the students' appre-

[1] Theodore Lindquist, Emporia, Kansas.

[2] See p. 108f.

ciation of arithmetic, to make arithmetic more interesting to them, to aid students in deciding as to good 'psychological organization' of the subject-matter of arithmetic, and to aid in discovering good procedure in the development work in arithmetic. This material is given in connection with the treatment of the fundamental phases of arithmetic . . ."[1]

"The purpose of the historical organization and meaning of number, etc., is to broaden the horizon and put the prospective teacher of arithmetic in a position to see the teaching of arithmetic in perspective rather than from the narrow and local point of view. Some of this historical material is given somewhat compactly by itself, and other parts are woven into the course wherever opportunity offers . . ."[2]

"My purpose in including the history of the English sentence structure is to develop in my students the chronological habit of mind, so that they may be enabled to marshall all of the known facts bearing on the points under discussion, and thus be able to explain the numerous peculiarities which mark the language of today. The historical material is closely woven into the treatment of the different topics of grammar. I am of the opinion, however, that it would be better to give it in a separate section of the course and then reemphasize it in the treatment of the different topics of grammar, but at present I am prevented from doing so on account of lack of time . . ."[3]

Miss Claire Williams, however, the description of whose suggestive course at Brockport, New York, is elsewhere quoted, thinks it advisable to give the historical material in a separate section:

". . . It seems inevitable to me that effective teaching of any sort has to be done in units. My own experiments with discursive teaching have ended in nothing at all."

3. That "the evaluation of textbooks" could furnish useful exercises for prospective teachers is perhaps sufficiently obvious, —especially in connection with differentiated curricula. In general it would be expected that sound criteria for this purpose would be developed wherever students are required to use a library. Indeed, wherever sound instruction is given in America does it not (in view of the large place of textbooks) imply some marshaling of such criteria?[4] Likely to be more pressing is the need of specific instruction in the classroom use of textbooks by

[1] A. C. Maddox, State Normal College, Natchitoches, Louisiana.

[2] R. M. Ginnings, Western Illinois State Teachers College, Macomb, Illinois.

[3] J. R. L. Johnson, State Normal School for Women, East Radford, Virginia.

[4] See W. C. Bagley, Craftsmanship in Teaching, p. 144f., however, for a suggestion that this view may be too sanguine.

the teacher.[1] The example afforded by good teaching probably always needs to be brought explicitly to consciousness.

4. The next item in order of frequency is "the development of methods in the teaching of the subject." It is evidently less systematically handled than the preceding topics,—for obvious reasons. One missing chapter in the history of American education is that dealing with the development of school practices. Accordingly, as was expected, little was said of it in the letters from the teachers whose courses mention it. The value of a genetic view of the classroom treatment of the school studies seems indisputable, however, though it has so far been little sought.[2] The less stable the condition of educational theory the greater the teacher's need of orientation of this sort as a measure of fortification against unsettlement and vacillation. Viewed from this angle, the present need for a faithful consideration of the topic is perhaps sufficiently apparent.

It is not implied, however, that the present situation is unique. In most respects it is far more stable than the situation in the first three quarters of the century. The early educational associations, though seeking to pool practical experience, were organized by and heavily represented the group that was convinced of the need of radical changes of method, frankly encouraged "experiment" as the means,[3] and early reflected the bewilderment produced, even among the experienced, by conflicting educational opinion. In the first half of the century, the numerous canny analyses of the chaos of educational theory and practice afforded almost the only orientation of the teacher.[4] The source of relief which a genetic study of educational experience affords was apparently first suggested by President C. C. Rounds in 1879 in the following words, after a somewhat despairing arraignment of the continual recurrence of "exploded theories:"

"Nothing but going to the fountain heads and following down the streams of thought . . . can really fit the teacher for his higher work . . ."[5]

[1] See Henry Johnson, The Teaching of History, Chapter XII, for an illuminating discussion.

[2] W. C. Bagley's lectures on the Technique of Teaching are the only systematic attempt at this that the author knows of.

[3] American Institute of Instruction, 1830, p. VI, e.g.

[4] See e.g., American Institute of Instruction, 1832, pp. 1–20; 1834, pp. 169–188; 1858, pp. 23–52.

[5] American Institute of Instruction, 1879, p. 69.

His suggestion was apparently without appeal, but the problem remained. In 1887 President A. R. Taylor, commenting on the teachers' lack of knowledge which would make them consistent and independent workers, phrased it in the following language:

"A sarcastic or a humorous critic can easily drive many of them from the use of methods to which they have been wedded for years, and which have the sanction of the best teachers in the land . . ."[1]

In the same year Charles DeGarmo, formulating a number of duties of the teacher of each subject, hit upon another value of the genetic study of practice:

". . . He [the teacher of subject matter] should present a historical view of his subject in regard to methods, as the best safeguard against a mechanical and slavish copying of educational devices . . ."[2]

In 1893, Thomas Kirkland's summary indicates that the scholarship group were agreed upon the importance of this element.[3]

There are excellent reasons for believing that the value to future teachers of a perspective over the evolution of methods in the school studies would be multiplied through its service to their instructors in theory in the teachers colleges. It is, however, to the teachers of subject-matter that the profession should chiefly look for scholarly accounts of the development of teaching practices in the school subjects. As a phase of their in-service professional education nothing is much more promising than efforts to interest them in research in a field so relevant to their daily work. Here a few sentences from Professor Henry Johnson are better than any exposition the writer can achieve:

". . . Surely to them [teachers of history] beyond teachers of any other subject, it should be apparent that there is an element of futility in sailing without charts seas that have already been charted and in making discoveries that have already been discovered. There are, it may be added, wide opportunities for independent exploration the nature of which can be understood only by those who embark with some knowledge of what has already been accomplished."[4]

[1] Proceedings, N.E.A., 1887, p. 469f.
[2] Proceedings, N.E.A., 1887, p. 491.
[3] Chapter III, p. 92.
[4] Henry Johnson, Preface, page xv, The Teaching of History.

Mutatis mutandis are not these remarks applicable with full force to every teacher of any subject?—especially in a school for teachers. The idea has somewhat taken root, however, in spite of the fact that no attempt has been made to exploit the field.[1] The following from one of the teachers whose courses apparently give systematic attention to the topic will illustrate. The question answered was in regard to the purpose of studying "early methods:"

"To help the pupils see what is meant by an inductive method of teaching. . . . Very often the pupils had in their own homes examples of old style text-books,—Goold Brown, and I think I got at least one copy of Lindley Murray. We could look at these and see how the emphasis was laid on memorizing by rote, rather than appeal to the understanding, and how the point of departure was always a general rule to be memorized and then applied to particular cases with no preliminary explanations. These old books were perfect types of deductive teaching; and by inspection of old time methods the pupils were led to observe certain characteristics of method to avoid in an inductive style of teaching. Its connection with modern teaching was: A deductive method of teaching grammar was barren of results; reasons why it was so; conclusion: avoid ineffectual methods, substituting for them some that will be more likely to get results . . ."[2]

5. The fifth item is "the literature of the subject," a phrase suggestive of sifted records of generations of tried experience. Thus it appeared to Alpheus Packard in 1833 when the quest for means of "improving education" was in the flower of its first enthusiasm:

"I have sought the light shed upon the path of the instructor by those who have distinguished themselves, even among the European teachers, and who have recorded the results of their experience for our instruction."[3]

Possibly always implicit in the insistence upon liberal culture, "masterly knowledge," "thorough," "scientific," "philosophical," "demonstrative," knowledge, as the quality of the teacher's scholarship was variously described, the idea of the importance of directly relevant scholarship had to be achieved against the ancient prejudice that

[1] See, e.g., Bulletin Series XX, No. 5 of the Educational Survey of the Colorado State Teachers College, pp. 22 and 66; and Bulletin Series XXI, No. 5, pp. 67 and 74

[2] Claire Williams, State Normal School, Brockport, New York.

[3] American Institute of Instruction, 1833, p. 183.

"For purposes of liberal training studies should be disinterested; they should be pursued for their own sake and not for the utilities that can be extracted from them."[1]

The phrase under discussion was apparently earliest applied to the description of the teacher's need by President L. C. Lord:

"It is true that the normal school as now organized can not give in extent the attainments which the college graduate is supposed to have acquired; but the normal school can and ought to set its students' minds in the right attitude toward knowledge. . . . A school which prepares teachers must not only see that its students have mastered some portions of knowledge, but must also see that they are introduced to a good part at least of the best literature upon each and all subjects upon its curriculum . . ."[2]

If argument were needed in support of the idea, it might be offered in the following utterance of Mr. Dewey's in 1904:

"It is necessary to recognize the importance for the teacher's equipment of his own habituation to superior types of method of mental operation. The more a teacher is likely to have to do with elementary teaching, the more rather than the less necessary is such exercise. . . . Only a teacher thoroughly trained in the higher levels of intellectual method and who thus has constantly in his own mind a sense of what adequate and genuine intellectual activity means will be likely in deed, not mere word, to respect the mental integrity and force of children . . ."[3]

The opportunities for the fruitful development of this idea are, in any subject, limited only by the time available. Those who are familiar with the recent literature of the normal school curriculum will recall the vivid suggestiveness of the comments of the authors of Bulletin Number Fourteen upon the comparatively uncapitalized literature lying behind and about the school studies.[4]

6. What of "educational values," the sixth item in point of frequency? Under various names and in diverse connections it has always been an absorbing topic with American teachers, and undoubtedly one of the important growing points of both educational theory and practice. It arose first in America in connection with the widespread concern over "practical education," a phrase which by 1835 had come to have as many and

[1] W. H. Payne, The Education of Teachers, p. 54.

[2] Proceedings, N.E.A., 1894, p. 850f.

[3] Third Year Book, National Society for the Scientific Study of Education, 1904, p. 22.

[4] The Professional Preparation of Teachers for American Public Schools, pp. 149f.

varied implications as there were varieties of predilections and special interests among teachers. The addresses printed in the proceedings of the American Institute of Instruction between 1830 and 1860 offer a sporadic documentation of the growth of the idea and the ramifying extensions of its meaning to touch every phase of educational thought.

The original import of the phrase was no doubt accurately expressed by the word "practical."

"In the minds of perhaps the majority of persons," said Mr. J. F. Grund in 1830, "education still consists in the acquiring of certain facilities for particular purposes of life. . . . The term practical knowledge has been misconstrued into the acquisition of only such branches of learning as, when grown up, the pupil will have an immediate call for . . .[1]

"A groveling utilitarian philosophy," said Jarvis Gregg in 1835, "has degraded every human interest and pursuit. . . . Nothing has any intrinsic worth . . ."[2]

The magic appeal of the phrase recommended it to reformers in every field of education. It became a catch-word or slogan. Every "improver of education," feeling and to some extent sympathizing with the spirit of the times, sought a hearing for his own reform by applying the term to it or showing its relation to "the practical." Science teachers, long before Spencer's essay was at hand, based the claims of their field to consideration upon the immediate utility of the knowledge they possessed. Educated laymen like Francis Gray, conscious of the dangers of the innovating spirit of the 'thirties, set forth a nearly modern view of liberal utility. To him an education that was to "the advantage of society" was the practical education to be sought.[3] Gideon Thayer, a gifted student of "improved methods" identified "practical instruction" with methods of teaching

"which present the subjects in a more practical form,—which require the least change from the school method to that to be pursued in the business of life . . ."[4]

The diversity of subject-matter interests on the one hand and the prolific interest in methods of teaching on the other gradually widened the conflict far beyond the original field of a struggle between "utilitarian" and "cultural" education. Practical

[1] American Institute of Instruction, 1830, p. 186.
[2] American Institute of Instruction, 1835, p. 127.
[3] American Institute of Instruction, 1832, p. 16.
[4] American Institute of Instruction, 1830, p. 127.

education assimilated itself to psychological or "natural" procedure on the side of technique, and on the side of philosophy took on the color of the modern ideal of social efficiency,—an idea clearly expressed by Francis Gray in 1832.[1] Every school subject was touched more or less transformingly by the various implications of the growing idea of "practical" education. Probably a direct connection could be traced from this early conflict down to the "minimum essentials" of the present time. It was necessary to justify these studies. Their values had to be reflected upon. Edward Mansfield in what appears to have been the earliest American treatise on the Philosophy of Education[2] devoted nearly one hundred fifty pages to the "utility" of five studies,—mathematics, astronomy, history, language, and literature, thereby consolidating in the interests of appreciation the net result of the oldest American educational conflict. Both aspects of present discussions of educational values were clearly displayed. The champions of new studies joined with the uneducated laymen to disparage the existing curriculum, and exhibited the meaning of valuing in the sense of judging,—while the educated laymen and the masters of the established studies reflected valuing in the sense of appreciating.

In the latter sense, as has already been indicated, the need of the teacher is clear. It seems likely, however, that the former sense is more commonly characteristic of present discussions, and that it often amounts to frank disparagement of materials that must be taught, because perforce they are in the curriculum. The waste of this needs no exposition. The worth of discussion of the infinitely intricate questions of educational values is indubitable for those upon whom rests responsibility for determining the content of the curriculum, but such responsibility comes only with mastership in the profession. Here, as of old, in the main it will be best to leave the debate to the stalwarts. There seems sound reason for accepting Bagley's conclusion that this topic belongs late in the education of teachers.

7. The worth of "exercises in course-making," to those who are to be responsible for shaping courses of instruction is clear enough. Whether it deserves a place in two-year curricula must be decided primarily on the basis of relative values. To realize the purpose would apparently involve a critical analysis and study of existing

[1] American Institute of Instruction, 1832, pp. 3–21.

[2] American Education, 1851, Chapters VI–X.

courses,—an exercise which, so far as this study reveals the facts, is just one sixth as common; and the development of principles of selection,—which is less than half as common. In the discussion of the items of this report in his seminar, Mr. Bagley suggested as a general principle that the responsibility for making courses should, because of the far-reaching importance of the activity, be restricted to those who have by proved service and advanced study acquired the necessary experience and insight. The argument is convincing.

8. The "psychology of the subject" and "standard tests" come eighth in the list, each occurring eleven times. What the first implies is well enough known to students of education. Probably the books of Freeman and Starch substantially represent the present tendency of the treatment of this topic in the normal schools. Only the latter touches grammar and then only as an incident to the discussion of language. On all the studies the material is meager; but the tendency is a promising one, and a recent pamphlet of Monroe's[1] suggests that public-school teachers have a more alert interest in the actual processes by which children master their work than has frequently been assumed. Normal schools must utilize such material, and the subject-matter teacher rather than the "theory" teacher holds the strategic position for transmitting such elements of technique as are established for his subject. Two recent books[2] deal with phases of the learning of arithmetic in a fashion likely to stimulate teachers to isolate the specific difficulties encountered by the learner. In this, probably, lies the chief service to be expected from "the psychology of the subjects." The "zero difficulty" in addition is a sample,—apparently first noted by Tyler (1827)[3] and largely neglected by subsequent teachers; and the grading of difficulties, for example, in the "ladders" of addition and fractions suggests probably a fruitful procedure for the organization of instruction in every subject.

So far as this study reveals the facts, the tendency is somewhat toward teaching the psychology of the school subjects in separate courses given in the departments of psychology and of education.

[1] Walter Monroe, Types of Learning in Elementary and High School, Bureau of Research, Bul. No. 7, University of Illinois.

[2] E. L. Thorndike, The Psychology of Arithmetic; Newer Methods in Arithmetic, Rand-McNally, 1921.

[3] B. M. Tyler, Arithmetick Theoretically and Practically Illustrated, 1827.

Within the school for teachers already the "right of discovery" has in some cases been strongly urged by the psychologist in support of such an organization of instruction. In this attitude the traditional acquiescence of the teachers college in the division of methods and subject-matter gives him almost a clear way. The right of discovery, however, might plausibly be denied on historical ground. Stowe, Jones, Albee, Parsons, and Tompkins all[1] provisionally exploited the idea in the interests of the professional treatment of subject-matter long before there was any systematic attempt at isolating and analyzing the specific materials. And it is hopeful that in eleven instances revealed by this study teachers of similar insight have assumed the function. The consideration of means of an effective development of the institution of teacher-training affords the soundest reasons for delegating the task to the teacher of subject-matter. The evils which follow the separation of methods from subject-matter should be clearest to the psychologist and (in a professional school) should outweigh his objection to having others utilize the materials that his fellows discover. The shaping of professional courses in subject-matter seems the chief promise of the teachers college, and the vision of the normal-school men above mentioned may well be regarded a gleam to be followed.

What are the objections to this procedure? Chiefly such as would tend to disappear with the adoption of the idea. The suggestions of Albee and Parsons, for example,[2] could provisionally be acted upon (as they were in Terre Haute[3]) without prolonged psychological training; and given the stimulating atmosphere of a professional school and some affinity for the professional attitude the scholarly teacher of subject-matter might be relied upon to master the materials.

There have, however, been other objections. President C. C. Rounds in 1879 offered the following:

"The mental processes involved in acquiring and in communicating knowledge are so different from one another that they cannot well be studied together . . ."[4]

[1] See Chapter II.

[2] See Chapter II, p. 78f.

[3] I am indebted to President J. A. H. Keith for the information that President Albee developed separate "special methods" courses,—in practically every common school subject.

[4] Proceedings, N.E.A., 1877, p. 163.

More incisive is Mr. Albee's comment in 1887:

"The habits of thought engendered while gaining the indispensable acquisitions of knowledge are not favorable to introspection. The mind has done well to observe and infer without turning aside to analyze the modes and causes of its activity . . ."[1]

Nevertheless he considered it essential to the purposeful education of teachers that the process be planfully entered upon.[2]

The objection was probably more frequently urged than the records show. President Parsons met it in 1890 by suggesting that

"It may be claimed that the strongest logical association which knowledge has is with the process which acquired it . . ."[3]

And Arnold Tompkins in 1894 championed the integration of subject-matter and method as follows:

"Neither psychology nor the so-called academic studies are in their own nature professional; but both become so when viewed as a factor in the process of learning, and therefore, of teaching. . . . The academic studies must still appear in the normal-school course. . . . Concrete, conscious experience must constitute the material of generalization—the material for the . . . methodology of the process. . . . All this must be done in the subject; not out of it. The solution of the problem of a strictly professional school, therefore, does not come by the simple process of exclusion, but by the organic process of inclusion . . ."[4]

Mr. W. H. Payne in 1901 opposed the tendency in the following analogy:

"There is a radical antagonism between the culture aim and the technical aim; it is like attempting to weave the fabric and make the garment at one and the same time. . . . The only complete relief from this antagonism between the liberal and the technical is to be found in making them successive and not simultaneous; in securing liberal training first, and then superadding to it that special training required for the practice of an art . . ."[5]

Opposed to this view are the intuitions of such teachers as have been quoted, and the long successful practice of at least one school for teachers. In Bulletin Number Fourteen of the

[1] Proceedings, N.E.A., 1887, p. 497f.
[2] Chapter II, p. 78.
[3] Proceedings, N.E.A., 1890, p. 718f.
[4] Arnold Tompkins, The Philosophy of Teaching, 1894, p. 82f.
[5] W. H. Payne, The Education of Teachers, p. 53f.

Carnegie Foundation the idea is given its clearest recent exposition,[1] as a fundamental aspect of the professional treatment of subject-matter:

"Whether it be a 'review' or a 'new view,' the student's own experiences in learning or relearning will form the best concrete basis for an understanding of the special 'pedagogy' of the subject. While these experiences are fresh, they should be studied and discussed to the end that they may be registered in the student's mind and be subject to recall when he himself essays the teacher's task. Thus his whole education sensitizes him to the learning process; it is not too much to say that the skillful teacher is one who can recall most clearly the successive steps of his own mastery and through these reconstruct in imagination the situation which the pupil is facing. The teacher who can not do this is the teacher who is likely to leave out essential stages in instruction and then charge up his failure against the stupidity of his pupils. It is just this power of recall and self-analysis in fresh learning that explains the humility and sympathy of the learning teacher as contrasted with the mental snobbery of the teacher who does not insist that he himself from time to time attack strange and difficult material. To be sure, his own experiences with subjects that cause his students difficulties gradually fade unless thoroughly studied and rationalized at the time, but the all-essential attitude of the learner must be maintained if he would really teach . . ."[2]

The service of "standard tests" is likewise clear. No comment seems needed beyond suggesting that here, again, the subject-matter teacher must regard it as a part of his responsibility to be familiar with the development of such aids in diagnosis of needs and checking up of results as these undoubtedly afford. There is a much more noticeable and equally objectionable tendency to relegate the treatment of this topic to the departments of education and of psychology. The indulging of it of course will tend in the old direction of division between subject-matter and method.

The remaining items in the table are not widely represented in practice, though some of them would appear to merit considerable attention. The "comparison of courses of study," for example, would apparently lend itself to more useful treatment than the more popular "exercises in course-making" and study of the "principles of selection of material." It should at least recommend itself as a study complementary to these. Finally, of

[1] To the development and elaboration of this idea in the Carnegie bulletin, Dr. W. S. Learned made the most significant contribution. It was he who converted Mr. Bagley to a thoroughgoing belief in the worth of the procedure.

[2] The Professional Preparation of Teachers, p. 231.

this whole group of topics which are entering into the treatment of teachers' courses it may be said that their inclusion tends toward the professionalizing of academic courses; and that in general emphasis seems to be falling upon matters of undoubted importance in the equipment of teachers.

The "variants" that are peculiar to particular subjects are in general elements of scholarship which when introduced into methods and review courses look in the direction of liberalization, —a value no less to be sought than the professionalizing of the liberal courses.

III. Complicating Factors

Here, then, is the status of the professional tendency of the normal school. The gains obviously have not become the common property of the institution. Toward this consumation, however, two significant steps have already been taken: namely, the *Carnegie Curricula* of 1917, and the elaborate study of *The Professional Preparation of Teachers"* in 1920.[1] From the close-knit theory which these presented dates a new epoch in the development of the idea of the professional education of teachers. Their contribution was badly needed, for the directive force of the older professional movement was largely spent. Before the close of the century the claims of subject-matter had been established;[2] the force of the original movement for a "purely professional" curriculum had largely passed; and the pressures upon the normal school teacher of subject-matter to differentiate his work from that done in liberal arts schools were relaxed. The absence of professional education for the normal-school teacher, the general lack of a comprehensive theory of teacher-preparation, the generally casual character of the programs of state departments of education, and other factors, together furnished conditions for "a rich development of academic work." The multiplication of high schools though apparently affording the wished-for opportunity to diminish the stress upon subject-matter did not operate widely in that direction. Normal school presidents who had earlier embraced the idea of a "strictly professional" curriculum substantially changed front and decided that in the equipment of the teacher,

[1] Bulletin Number Fourteen.

[2] See p. 93.

"His chief resource is his comprehensive and detailed knowledge of the subject-matter he is to teach and an appreciation of its educational value . . ."[1]

This view, often expressed as an opinion, received strong confirmation from school superintendents in states where the "purely professional" view had received most emphasis. One normal school president secured from a hundred city school superintendents their opinions as to the shortcomings of normal school graduates and concluded that lack of scholarship was the outstanding deficiency, and announced that the policy of the state department of education was

"to extend the courses of state normal schools and city training schools one year and devote that year to advanced academic instruction . . ."[2]

Specific programs for extending liberal arts instruction were proposed.[3] The danger was apparently perceived by few. Bagley's address in 1918 presented from a new angle the argument for professional education,—an education comprising "scholarship of a very high order, but of unique quality," and one acquired in an organization of instruction which would compel the teacher of subject-matter to attend to the problems of adapting instruction to the needs of the public school teacher.[4]

The tendency of the normal school, however, especially in the middle-west, was distinctly in the direction of liberal arts courses in subject-matter. President John W. Cook in 1902 asked:

"Am I mistaken in my impression that there is a disposition on the part of normal school men to return to the academic work of the old normal school?"[5]

Seven years later the following words vividly record that tendency:

"In 1911 an arrangement was effected between the State University and the normal schools *whereby the normal schools give the first two years of university work. This increased the proportions of our students who look forward to law, medicine, business, or engineering, and also of those who look forward to nothing in particular except having a good time.*

[1] Proceedings, N.E.A., 1914, p. 499. Cf. 1903, p. 577.
[2] Proceedings, N.E.A., 1914, p. 556f.
[3] Proceedings, N.E.A., 1916, p. 459f.
[4] Proceedings, N.E.A., 1918, p. 230f.
[5] Proceedings, N.E.A., 1902, p. 547.

"In addition there has been established in each normal school some special department. The department in our school is the industrial, to prepare teachers of manual training. The fifty boys in this department soon made us aware that the motile type of student, which we had known of old, had received a large reenforcement in numbers. *The teachers of language had to readjust their work.* But a year soon came when we won the state championship in both basket ball and football . . ."[1]

Consider along with these the following comments in 1921 on the tendency elsewhere to obliterate the distinctions between two-year professional curricula for teachers and junior college liberal arts curricula:

"Another movement . . . has shown signs of extension that are disquieting. This is the attempt to combine with established teacher-training institutions the first two years of a college of liberal arts,—the so-called 'junior-college' curriculum. . . . To conduct adequately the first half of a liberal arts college course in the close institutional intimacy with a two-year teacher-preparatory curriculum that this necessitates, seems bound to cripple professional procedure and purpose in a very serious manner . . .

"The fundamental objection is the perverted psychology of the proposed arrangement. The driving spirit of any successful professional institution lies in its unity of aim and purpose; it owes its students the inspiration and self-confidence that come from the determination to do one thing supremely well . . .

"Cross purposes . . . react inevitably on the instructors. Instead of focusing every effort on giving students the best possible preparation for teaching, the object of the staff is to discover, in the interest of economy, how many courses can be given that will carry credit with both types of student . . .

"It is useless to look for single-minded and progressive professional activity under such conditions; the main stream is divided, and the impact upon each student is hopelessly weakened; the plan is as preposterous in some respects as it would be to combine curricula in law with curricula in theology . . ."[2]

These citations give food for thought. The dangers involved in the academic tendency are patent. Yielding to it the normal school would throw away as inconsequential the tremendous advantage of a permeating singleness of purpose.[3] Whatever

[1] Quoted by F. R. Clow, Principles of Educational Sociology, p. 322. My italics. I fancy that the concluding sentence of this quotation is ironical. See also, Carnegie Foundation, Bulletin Number Fourteen, Chapter V.

[2] Sixteenth Annual Report of the Carnegie Foundation for the Advancement of Teaching, 1921, pp. 83–84. Cf. Proceedings, N.E.A., 1918, p. 230f.

[3] Chapter I, p. 34f.

the factors in this retreat,[1] it could hardly avoid the effect of treachery to the service for which the school exists. Not only "the teachers of language," but all teachers in the normal school would "have to readjust their work;" and this would constitute a practical negation of the idea upon which the normal school arose and by the success of which the institution has been multiplied,—an indefensible identification of the first two years of university work with the essential needs of teachers, and a blind willingness to sacrifice the hard-won gains of nearly a century of experience in the differentiating of professional from liberal arts education.

Along with this phase of the academic danger to the professional school for teachers must be considered another,—one incidental to the present rapid elevation of normal schools to the status of four year degree-giving teachers colleges. Upon this topic Mr. Lester Wilson in the course of the most suggestive study yet made of the uncapitalized opportunities for integrating the work of normal schools about their training schools, made the following sagacious comments:

"If the normal schools are to offer four years of work, . . . the justification for such extended curricula must be that they offer a kind of professional training not now offered by other institutions, or offered by too few of them to meet the demand for preparation of teachers on a high level . . ."

He was thinking of the relations of subject-matter teachers to the "practical work" of the training school, and went on to say:

"This distinctive feature must be the intimate contact which the work is made to sustain throughout its four years with whatever grade or type of work the student is preparing to teach. . . . The addition of two years of work which are less professional than the two years already given in most normal schools can not but weaken the whole professional work of the school. It will do this by diversion of funds and diversion of faculty and student interest from purely professional work . . ."[2]

[1] It is not implied, and should not be inferred, that in such cases the normal school president has sought or been in harmony with such dilution of purpose. The "inside story," one of the ablest of them has hinted to me, would reveal a nexus of operative factors; and I infer that these could not at once be directed by an appeal to an ideal or by an exposition of professional needs.

[2] Training Departments in State Normal Schools in the United States, p. 43.

To this "distinctive feature" of the work of the school for teachers, it is clear, must be added recognition of the abundant possibilities for *the professional treatment of subject-matter*. The four-year teachers college will have sufficient time for the long professional courses that are needed in subject-matter. Its duty with respect to these is perhaps clear. The argument of S. S. Parr in the 'eighties may be drawn upon once more:

"The distinction between academic knowledge of subjects and teaching knowledge of them is vital. If it does not exist, there is no reason why the preparation of teachers should not be turned over to colleges and their chairs of didactics . . ."[1]

The means of differentiating teachers' courses from liberal arts courses are now fairly clear. The importance of capitalizing in all schools the best practices discovered in any school requires no exposition. The major difficulties are not new. They are inherent in the tendency to follow the line of least resistance and in the demand for industry in professional acquisition, which is involved in adopting the professional attitude toward subject-matter. The comparative absence of pre-service professional education for specialists in subject-matter and the importance of their adapting their instruction to the conditions of public school work point to the need of a conscious organization of normal-school faculties for in-service growth in professional spirit and technique. It is certain that instructive examples of such an organization could be brought together.[2] The "self-surveys" of two teachers colleges in the past few years suggest, both in the problems which they recognize and those which they do not touch, the need of such an organization.[3] Needless to say the president of the school for teachers occupies the strategic position. The traditional power of his position and the traditional organization of the faculty of normal schools together render it almost inevitable that the spirit and outlook of the school will reflect closely his spirit and outlook.

IV. Recapitulation

1. The Nature of the Gains.

The major outcomes of three quarters of a century of normal school experience and discussion have now been surveyed from

[1] Proceedings, N.E.A., 1888, p. 468.

[2] See p. 40f.

[3] Greeley, Colorado, and Cedar Falls, Iowa.

the angle of their effect on the treatment of subject-matter. In brief, the contrasting ideals of masterly scholarship on the one hand and of professional fitness on the other drew somewhat together. Both ideals survived on the merits of their relevancy to the teacher's needs. Significant contributions to the integrating of the two were at various times made; but they arose sporadically and their application remained sporadic. Still, there were substantial gains for the profession as a whole,—gains somewhat generally acknowledged, at least in theory. The conception of the teacher's scholarship, for example, widened appreciably after the 'fifties, and gained in definiteness under the professional impulse of the normal school. Realization of the teacher's need of appreciating the significance of the subject-matter to be transmitted found expression in the discussions of "educational values;" and this tendency obscurely joined with realization of his need of sound method, to introduce consideration of the history of the subject-matter; in the normal school the implications of scholarship began to be analyzed in the 'seventies, apparently first from the angle of philosophy; in the nineteen hundreds, and probably more fruitfully, critical expositions of the scholar's equipment in relation to the teacher's work appeared in the literature of the normal-school curriculum,—adding on the side of technique a new facet. The conception of professional fitness underwent in the same period similarly significant changes. It established dynamic connections with scholarship in the conceptions of Stowe, Edwards, Buckham, Albee, Parsons, and others; scholarship was to be acquired in an organization with reference to its professional use; subjects were to be taught from the angle of reteaching them; and the prospective teacher was to become sensitive to his characteristic work through a process of analyzing his own procedure in learning subject-matter. Perceiving the weakness of imitative methods and the dangers of unbalanced enthusiasms the leaders sought in the history of methods a means of orienting prospective teachers and making them "independent workers." Considered in the light of their possibilities, these were significant gains.

The next chapter will take some advantage from a summary of the implications of the professional treatment of subject-matter.

The professional attitude was seen to be the *sine qua non*. Only this ensures the vital adaptation of instruction. It is the source of all specific measures for differentiating professional

from academic work. By "professional attitude" is meant nothing esoteric; at bottom it only means that the teacher of teachers shall be so sensitive to the needs of the service and so well acquainted with the characteristic pressures upon the public school teacher that he will consciously shape his instruction in the interest of both.

Such an attitude, properly conceived, can never imply doing any violence to the integrity of a field of knowledge;[1] nor can the interests of professional fitness and the specific means by which it is to be sought imply any abridgement of the time now found insufficient for equipping prospective teachers with subject-matter. If the theory of the teacher's needs which has been championed in this study is sound, courses in the school studies must be long enough to secure the essential ends both of scholarship and of professional fitness. The responsibilities of the teacher of a branch of subject-matter can not be increased without making opportunity to realize them. The idea of the professional treatment of subject-matter implies curriculum differentiation, which by limiting and defining the scope of subject-matter courses provides opportunity to focus instruction under the guidance of the professional attitude. This is a step toward providing the time needed for longer courses, and eventually must be a phase of every state program. What are the implications of the professional attitude? The answer must be found in the needs of the service.

1. Now as in the beginning, familiarity with the actual materials to be taught must be placed first. In large measure these are prescribed in existing elementary courses of study and in the textbooks in the various school subjects. Even if both these were ideal, however, the necessity of such equipment should not veil its inadequacy. Upon this the statement of Professor J. W. A. Young concerning the preparation of teachers of mathematics is apropos:

> ". . . Without the illumination of much broader mathematical acquisitions it is apt to be sterile or to lead to an expenditure of talent and valuable energy upon undue elaboration of relatively unimportant matters . . ."[2]

Experience has amply supported the belief that effective teaching implies the teacher's possession of knowledge far beyond what

[1] Proceedings, N.E.A., 1903, p. 579.

[2] J. W. A. Young, The Teaching of Mathematics, p. 153.

can be taught to his students. *New* and *wider* views of the possibilities of *familiar material* must be secured. This very broadening of scholarship, however, brings its own teaching problems. A casual remark of Dean Russell's to the effect that one who must daily teach all he knows of a topic has, personally, a simpler problem than one who must constantly select from a wide store that which is germane to a given situation acutely expresses the scholar's problem in the adaptation of instruction,—and reinterprets the inadequacy of "mere" scholarship. This leads to the second implication:

2. The professional education of teachers involves not merely the extending of intellectual controls in a field of knowledge, but such extensions as are most pertinent to the teacher's problems and the social purposes of public education. Here is a second point at which the professional attitude comes into play. A course of instruction must be planned which will ensure the most relevant scholarship. For this the subject-matter teacher needs the guidance of qualitative studies of the success, and the failure, of public school teaching of the fundamentals of his subject. Whatever the concrete results of such studies may reveal, one general principle is clear: namely, that the teacher needs not only comfortable margins of knowledge, but that he needs also a profound "respect for the elemental materials"[1] that he is to teach. This is one of the directions in which scholarship must be extended. The means of securing such an appreciation involve both the extension of knowledge and the purposeful affecting of attitudes. Obviously in the latter elements of technique are involved. This leads to a third group of implications.

3. The professional attitude will lead to searching out "the condition of the learner"[2] and the adaptation of instruction to it in such a way as to leave with the learner deposits of technique for future use. Would the methods employed by the normal school teacher be equally applicable in an elementary school? is a question that may well be considered at the time. The problem is to make dynamic connections with the students' past achievements and present purposes. An initial exploratory or diagnostic test might in many cases be a fruitful approach

[1] W. C. Bagley, Lectures on the Professional Education of Teachers, 1921.

[2] James G. Carter, American Institute of Instruction, 1830, p. 64.

either to presumably familiar material or to new subject-matter. Old[1] though it is, no better means of making "needs" apparent suggests itself. Precept and admonition are most effective when their occasion is personal to the student. Among the "conditions of the learner" which touch the success of the instructor in subject-matter Professor R. E. Dodge calls attention to the importance of considering the methods by which the student has previously studied the subject. Accustomed to a plan

> "time honored in its elements, . . . the pupils are often so completely under the spell of their preconceptions that it is difficult to awaken an intellectual interest . . ."[2]

The desirability of "new views"[3] may indicate the need of a fresh front of attack. Whatever the effective procedure the prospective teacher should be made conscious of it as an element of technique. This is another outcome of the professional attitude. "Unconscious tuition" in method, through good example in class work, needs much supplementation through direct effort to lift the subtle elements of good practice to the level of consciousness. The value of a particular procedure should be seen in the light of its purpose, and students should be encouraged to suggest other procedures in the light of their future work. Difficulties will be encountered by the students in mastering the subject. The instructor's treatment of such difficulties should not be left without reflection upon its bearing upon the future work of the student.[4] The principle suggested by Stowe and elaborated by Parsons and the authors of Bulletin Number Fourteen[5] may be applied at all such points.

2. The Problem Restated.

At the beginning of this study two questions were proposed: (1) Should teachers' courses in a specified subject-matter be given a treatment that will differentiate them in a thoroughgoing way from liberal arts courses in the same field? And (2) if they should be, what are the means to such differentiation?

[1] American Institute of Instruction, 1834.
[2] Teachers College Record, 1914, p. 78.
[3] Bulletin Number Fourteen, p. 149.
[4] Bulletin Number Fourteen, p. 231.
[5] Bulletin Number Fourteen, p. 231.

On grounds of the needs of the service and the characteristic pressures upon teachers, the first question has been answered explicitly in the affirmative.

The second question has been answered implicitly,—in terms of past and present practice and the theories of the leaders of the institution in regard to how that practice might be improved. But the various items of knowledge and skill that have been recognized as contributing to the subtler needs of teachers are apparently nowhere integrated in practice. They were formulated at various times and places on the basis of the experience or intuitions of gifted teachers; and their application, as this study shows, has remained local. A synthesis of them is needed. Ideally such a synthesis would consist of a series of concrete illustrations of the application of the more important of the elements discovered to the professional treatment of units of typical subject-matter. Taking, for example, say, from arithmetic the subject of decimals or stocks and bonds; from grammar, the complex sentence; from geography, the Mississippi river or Chicago, or the general circulation of the atmosphere; from history, the Smith-Pocahontas story or the Monroe doctrine; from literature, a group of fables or a great novel or essay,—an illustration would be given of what the professional treatment of subject-matter might imply in such concrete cases.

In short, sample chapters from a series of possible textbooks would be presented.

Fascinating though the prospects of such an adventure clearly are, the reasons for not attempting it in this monograph are as numerous as they are sound. It is in the first place, not one, but a series of large adventures. And each of these belongs of right to the professionally-minded and professionally-trained specialist in subject-matter, who in addition to generous special scholarship and the professional attitude, possesses the subtle knowledge of "the condition of the learner" which comes from sufficiently long and appreciative teaching experience with particular groups. To assume these would obviously be the height of presumption. Moreover, such an attempt would have the appearance of a prescriptive treatment. The essential thing is the professional attitude. It may work itself out in various ways. "How many things by season season'd are!" said wise Portia. For the recognition of what is seasonable no prescription can be given,—

or it can be best given by the subject-matter specialist who is also a professional teacher.

Nevertheless some provisional suggestions may be made. It should be apparent, however, that there will be nothing dramatic in such suggestions. No one who has attentively followed the preceding discussion will expect great novelty in the illustrations. Nothing could be clearer than that there has been much good practice in the professional treatment of both subject-matter and methods. All the means known to the author for professionalizing academic material have been discovered in the past and present work of the normal school, and some of them have been developed and applied in a far more thoroughgoing way than the author of this monograph could achieve.

With due humility, therefore, the final chapter of this study is approached and an attempt made to indicate insufficiently capitalized opportunities for the teacher of teachers to "professionalize" his work.

CHAPTER IV

SOME SUGGESTED APPLICATIONS

Introduction

Reduced to its lowest terms the idea of the professional treatment of subject-matter implies (1) on the side of scholarship such "new views" of generally familiar material as will reveal its racial significance and its potentialities for public education, and such extensions of scholarship as will be most likely to ensure flexible control of the problems of utilizing the study for social purposes in a particular teaching position; and (2) on the side of method it implies a conscious organization of instruction in subject-matter with reference to the professional responsibilities of the future teacher,—which among other things involves the transmitting of a fruitful method of study and the purposeful affecting of attitudes and technique.

The complexity of the problem is obvious. In any case the subject itself, as a body of organized knowledge and methods of working, has claims which must be regarded as basic. Beyond these, the "needs" of a group of prospective teachers will vary somewhat in detail with numerous factors,—such as the initial equipment of fact and principle which the prospective teachers possess, the method of study by which they have acquired the equipment they possess, the time available for the subject, the characteristic weaknesses of public school work in the subject, growing points in theory and practice, the character of the elementary school text books available, the scope and content of the courses of study used in the schools where they will teach, the levels of work for which the students are preparing, and the like.

These are some of the larger clues to the selection of material and to its organization. Whatever the level or grade of teaching prepared for, the possibilities of advanced courses providing both wide margins of knowledge and fruitful points of view and technique should be capitalized in the professional school.

I. Geography

In preparing public school teachers for their work in geography, for instance, a teachers college would feel bound to illuminate the topics covered in the public school courses of study in its tributary region, and to transcend the treatment given in the best elementary school textbooks. Such a professional purpose would at once suggest the need of differentiated curricula. Inspection of such textbooks for the upper grades as those of Tarr and McMurry, Parkins-McMurry, Brigham and McFarlane, Smith, Dodge, and Frye-Atwood partly suggests what this would involve. The elements of mathematical, physical, and commercial geography are in such books in varying degree wrought together from the point of view of "human geography," and in the exercises a method of geographical study is developed: conditions are exhibited in map, picture, graph, statistics, and narrative, and the exercises set problems for the pupil. The emphasis upon interpretation is apparent in the number and the themes of the maps, as well as in the character of the exercises. One of the books above mentioned, for example, employs over eighty maps, covering a dozen phases of geographical concern;[1] and the number of significant problems set is very impressive. The readings suggested in them raise a further problem of preparation. They involve history, travel, economics, and sociology. In the wide range of the subject-matter to which the elementary school pupil is introduced, and in the method of study into which he must be inducted appear the warrant for the present insistence among geography teachers upon the teacher's mastery of "the principles of geography," and his attainment of the "geographic point of view." In the social purposes now advanced for the subject in the public schools is involved a further widening of the scope of subject-matter. If geography is to be levied upon purposefully to broaden and deepen international sympathy, and to decrease friction between nations as well as to promote national solidarity through an intimate and vivid appreciation of the life of the peoples of the world[2] the preparation of teachers of geography must be very generously conceived in the professional school. Such an aim as this would be shared by the other social studies, of course,—notably by history. The attempt to enter

[1] See page 137.

[2] Zonia Baber, Journal of Geography, vol. XIV, p. 295.

intimately into the life of the people of a country transcends the data of geography very far and calls for an integration with geography of facts drawn from history, economics, sociology, literature, travel, and science.

The problem of organizing such complex materials is obviously a difficult one. The last sentence of the following quotation suggests the subtlety of the task:

"The classic definition of geography as an account of the earth as the home of man expresses the educational reality," concludes Dewey. "But it is easier to give the definition than it is to present specific geographical subject-matter in its vital human bearings. The residence, pursuits, successes, and failures of men are the things that give the geographic data their reason for inclusion in the material of instruction. *But to hold the two together requires an informed and cultivated imagination.*"[1]

A further difficulty, by no means small, is the traditional one already mentioned. It is apparent in the literature of geography teaching that the old conflict over the relative contribution of method and matter to the teacher's equipment is still operating. The following expressions illustrate its continued vitality:

"Ever since training schools for teachers were founded there has been carried on a discussion as to whether it is better to tell prospective teachers how to teach a subject or to teach them the subject. Those who hold that practical teaching exercises should be the chief, if not the exclusive, object of a training course base their contention on the short time available for training and on the simple needs of the grade teacher, and even of the high school teacher. They do not ever expect their students to go a-voyaging in the realm of the unknown for the purposes of exploration and discovery. They regard that as the function of higher learning and maturer years. The pragmatic, the practical, is their goal.

"On the other hand are the training teachers that have their eye on the subject rather than on the method, and have themselves felt the inspiration of great teachers absorbed in their subject who needed not to give special emphasis to method because the subject was so interwoven with the method that it was always full of color and inspiration. In their view the introduction of method as a thing apart is the introduction of a skeleton when the audience expects a gymnast . . .

"The fortunate men and women who have the genius both to show us how to teach and to lead us at the same time to the frontiers of geography, illustrate the policy of the Journal."[2]

With this view may be contrasted the following:

"As the function of the normal school is to furnish preparation for teaching, the normal school work in geography should obviously be in

[1] John Dewey, Democracy and Education, p. 248. My italics.

[2] Journal of Geography, 18 :204, the Editors. Cf., Dodge and Kirchwey, The Teaching of Geography, p. 210.

subject-matter. In those schools having differentiated curricula, there should be a course in geography for the lower grades and one for the higher grades. In many of the normal schools the geography now offered is a 'review' of elementary school geography. This is an important factor in preventing a high standard of teaching."[1]

It will be useful as a starting point to consider an actual unit of subject-matter as presented in an upper grade textbook that has been very favorably reviewed in the *Journal of Geography* by a well-known teacher of geography in a well-known normal school.

Canada

The treatment of Canada in one of the books above mentioned covers eight large pages of text, exercise, map, and picture, and deals with the following topics in order:

1. Location and Extent (a mere statement of three lines comparing the Dominion with the United States).
2. Nationalities (one line).
3. Population (two lines).
4. Political Divisions (three lines).
5. Climate (brief but clear general statement of climatic areas, twenty-five lines, with references to two maps,— rainfall and vegetation relief).
6. Geographic Regions (roughly five pages of text covering physical features, political divisions, occupations, resources, cities, distribution of population, and commerce, with references to the physical map of North America and the political and economic map of Canada).

The real organization of the treatment, however, is through problems. Six substantial "exercises" are set,—containing some seventy problems demanding close study of the text, reviewing of earlier generalizations, and much interpretation of maps. The simplest problems set call for the memorizing of names of places and their location, the discovery of articles of import and export, and the like. A method of study in such problems is provided for the pupil by the use of the outline map and the imaginary journey, and the map of commerce and markets. Perhaps the next simplest problem is that of relating the larger geographical features of Canada to those with which they are continuous in the United States, a provision for review and continuity of knowledge; or the observation of community uses of such products as asbestos, which calls for first hand observation. The emphasis of the exercises, however, is upon interpretation of conditions,—

[1] J. F. Chamberlain, Journal of Geography, 20:276.

the articles of import and export, the distribution of occupations and population, the location of cities; why most people in Canada live near the southern boundary; why the region of the prairie states is comparatively dry; how temperature changes with latitude and altitude; what accounts for the steel industry at Sydney; why Montreal outgrew Quebec; why the rainfall is so heavy in British Columbia; why Canada imports this and exports that; why the Grand Bank is a dangerous fishing ground; why there are so many lakes in northern Canada, and the like.

Eight more or less convenient maps are utilized throughout the chapter,—covering rainfall, relief, vegetation and relief, physical features, political and economic conditions, glaciation, commerce, and the distribution of population. Sixteen pictures are employed, each illustrating an important feature of the country and most of them posing a problem for the pupil. Attention is insistently directed to the geographical features, their significance to the people, and their explanations. Glaciation, soils, drainage, communications, relief, depressed coasts, latitude, harbors, climate, resources, occupations, the distribution of population,—these and other topics have to be worked out in their interrelations. Finally, there are a few suggestive assignments of readings, notably, the travels of Amundsen and Stefansson, the building of the Canadian Pacific railway, a cyclopedia article on the tides of Fundy, and an account of the political institutions of the Dominion.

Here, then, as geographer and geography teacher have planned it, is the elementary school child's knowledge of the geography of Canada. What should be the elementary school teacher's knowledge of it? is the question. By various people it has been raised before, and answered,— in terms both of various conceptions of the use of geography, the relative value of different blocks of subject-matter, and of different levels of study. The numerous books upon the teaching of geography differ in detail, but substantially agree in general emphasis upon the necessity of wide scholarship. The answer here provisionally given varies from those elsewhere set forth, mainly in the following respects: (1) the more specific relation of the extensions of scholarship to the materials selected by the geographer for the elementary school; (2) a somewhat heavier emphasis upon the attempt to have the prospective teacher realize the geographical situation in terms of its human effects; but especially in (3) the

emphasis placed upon the value of the teacher's appreciation of the process by which geographical knowledge has been accumulated by the race.

The clarity of the treatment given in the more recent text-books to the wide range of subject-matter, and the method of study required by the exercises, especially by the detailed problems, would enable a sufficiently zealous and energetic teacher to remove very considerable initial deficiencies of scholarship. The qualification is significant, however, for the elementary school teacher must deal with a large number of subjects every day. The effective use of such a book from the beginning presupposes a generous course of study covering the principles of geographic control or influence,—whether a composite course or a sequence of mathematical, physical, commercial, and industrial geography,[1]—and providing a fruitful method of study. Beyond this, it implies relevant knowledge of the history of the country,—the geographic influences upon it, especially; and if the readings referred to (and many others that might be used) are to be capitalized, it implies an appreciative acquaintance with the literature of discovery and exploration. Finally, it implies a reflective sensitiveness to the problems of utilizing such materials for the social purposes of public education. Normal school courses such as the following,[2] from catalogues of 1921, would evidently not meet the most modest requirements of a professional course for teachers who are to use a modern elementary school text-book:

"Geography, a general cultural course."

"The course in geography consists of nineteen lessons and prescribed readings. The course is written from the point of view that geography is mainly a study of places and things useful and interesting."

"Professional Geography, Primary: The work in geography as taught in the first four grades will be the subject-matter covered in this course. Fairbanks Home Geography will be made the subject of considerable study. Model lessons will be presented and the student given an opportunity to teach. One or more observation lessons with children from the training school will be included in this course.

"Professional Geography, Advanced: This course will be run on the same general plan as Professional Geography, Primary, with this difference, the work covered will be from the fifth grade to the seventh grade inclusive, and Tarr and McMurray the text."

[1] Proceedings, N.E.A., 1916, pp. 458–460.

[2] Cf. the courses, cited in Chapter III.

"Primary Geography: This course deals with the content of geography usable in the primary grades. It is given in connection with Nature Study. Tarr and McMurry, Second Book, and references."

Accepting for the elementary school the subject-matter and the treatment outlined by the geographer in the textbook used for illustration above, what amplifications and new viewpoints should be regarded as essential to the preparation of the teacher who is to use such a textbook?

It will be convenient for discussion to follow the sequence of topics adopted by the textbook.

1. The first two topics (location and extent) are familiar. They suggest the universal outline of the old geography,—in which there was a generalizing of the application of the topical method that gave the schools "Geography by the Brace System"[1] and reflected the original cyclopedic character of the subject.

In the textbook, however, these items more or less explicitly take on a new significance through the exercises in which location is associated with the various facts of climate and its effects, and (rather vaguely, however,) with political and national relations, interests, and outlook. Area, as a geographic datum, is only implicitly dealt with, in connection with relief and climate. The influences of location and extent are apparently nowhere summarized in the textbook.

Perhaps these influences do not need to be isolated for the elementary school *pupil*. For the future *teacher*, however, it is desirable, in the interest of facile control, that the significance of each topic be somewhere, sometime, specifically considered in itself; how and when are details of the organization of instruction that must be determined by the instructor for himself. Certain possibilities will later be suggested.

The prospective teacher should be able to generalize the significance of *location* from the viewpoints both of geography and history. As a teacher of geography he must know intimately the relation of geographical location to climate, because of "the supreme importance of climate in determining the mode of life." The corollary facts of prevailing winds and ocean currents, the sea highways of the nations, provincial or cosmopolitan location, the general range of possible vegetable and animal life, the

[1] Boyer and Wicks, Geography by the Brace System, Flanagan, 1892.

conception of "regions of energy" developed by Huntington,[1] and the like suggest themselves as important items in the equipment of the prospective teacher of geography which should be associated in the complex concept of geographical location.

Beyond this the prospective teacher of geography needs to be able to draw freely upon history for illustrations of the significance of geographical location. As also a prospective teacher of history he no doubt will have been introduced to the now rich literature gathered about geographic influences in history; but he will have acquired his familiarity with this literature in an organization with reference to a different central purpose. As a teacher of geography he will need to make selections germane to his immediate task:

> ". . . For the most part European experience seems to indicate that the place to emphasize the geographical background of history is in the history course, and that the place to emphasize the historical background of geography is in the geography course . . ."[2]

It will be to the advantage of effective teaching of geography in the public schools to charge the scholarly geography teacher in the teachers college with responsibility for selecting the most relevant historical material for this purpose. The works of Turner,[3] Semple,[4] and Brigham[5] in America, and of Herbertson,[6] Mackinder,[7] and Lyde[8] in Europe are familiar and contain much material useful to the geography teacher in the elementary school. The essential interplay between facts of geography and movements of history suggests that the concept of geographical location should include consideration of the cultural contacts provided or denied in a given situation, the rivalries of nations, and the like.

[1] Ellsworth Huntington, Climate and Civilization; Principles of Geography.

[2] Henry Johnson, The Teaching of History, p. 397.

[3] Frederick J. Turner, The Significance of the Frontier in American History.

[4] Ellen Semple, Geographic Influences in American History.

[5] A. P. Brigham, American History and Its Geographic Conditions.

[6] A. J. Herbertson, The Oxford Geography, 1907; The Clarendon Geography, 1912.

[7] H. J. Mackinder, The Geographical Pivot of History, cited by Semple, Influences of Geographic Environment, p. 166.

[8] L. W. Lyde, Man in Many Lands, London, 1910.

The consideration of *area* or extent opens up the field of biogeography as well as climate, and is obviously one of the topics of large importance in "human geography." Area and location together roughly define the opportunity for variation of life,—both plant and animal. Large area of itself connotes diversity of conditions, and that in turn diversities of adaptation, opportunities for specialization of life and pursuits, and the possible conflicts of interest that affect the development of institutions and culture. In conjunction with relief the effects are of course multiplied. On the relation of mere area to life the classic *Origin of Species* furnishes at least one account[1] that could be brought within the resources of the teacher of geography, and is not beyond the possibilities of a short course. Taken along with, say, Semple's treatment of geographical area,[2] which masses the evidences of the influence of mere extent of land upon the associated life of men, a few such readings should place the teacher upon a fresh vantage of interest and security.

In view of the long established formal treatment of these two topics, it seems especially desirable that the public school teacher have the stimulus of a larger view of their possibilities.

2. The topic *nationalities*, though barely alluded to in the text, is clearly an important one in the study of a nation,—especially by students living on the same continent with it. The war-born aim of promoting friendly international relations[3] through intimate study of the life of the people is shared by all the social studies. The preparation of the teacher of public school history would undoubtedly involve elements that could be drawn upon by the teacher of public school geography. Here again, however, the teacher of geography will find selection necessary.

> "The history needed to illuminate geography may or may not be the history needed to illuminate history."[4]

The predominance of the English in British Columbia is probably accentuated by its near-English climate; the Scotch cast of population in Ontario and Nova Scotia may owe something to local geographic features; Americans, Swedes, and Norwegians may be attracted to the prairie belt by climatic conditions somewhat

[1] Charles Darwin, Origin of Species, vol. I, Chapter IV; vol. II, Chapter XII, e.g.

[2] Ellen Semple, Influences of Geographic Environment, Chapter VI.

[3] Zonia Baber, Journal of Geography, vol. XIV, p. 295.

[4] Henry Johnson, op. cit., p. 397.

like those to which they are accustomed; and so of Mennonites and Doukhobars; but not so the French in Quebec; and hardly so the orientals of British Columbia. Into the explanation of the racial elements of the population other important factors enter largely. The teacher of geography especially needs to levy generously upon the history of colonization. The classic work of Keller[1] might at least be sampled by the prospective teacher of geography, after mastery of, say, such a summary of Keller's generalizations as Professor Fairchild gives.[2] And the history of discovery and exploration has claims from the point of view of the teacher's attitude toward his subject-matter.[3] Beyond this is implied some acquaintance with the national problems of the Dominion as affected by its racial elements.[4]

3. The questions of distribution of population and of the political divisions of the dominion receive their treatment in connection with the geographical regions, where their geographical relations are apparent.

4. Climate, then, is the next topic,—the first to which the text-book under consideration gives real attention. The teacher would need much more detailed information than the textbook supplies. Even so thorough a mastery of the principles of climatology as Professor Vischer suggests for the teacher of geography[5] would still require specific supplementation. Comparison of the growing conditions in Northern Canada with those in Siberia would provisionally suggest something of the possibilities of the century for our neighbor. The university city of Tomsk in Siberia, for example, with (before the war) a population of some sixty thousand has approximately the latitude of Fort Chipewyan. The province of Vologda, Russia, has about the general climatic conditions of the northern half of Alberta and the District of Mackenzie and supports a million and a half people. Towns of five thousand people in Eurasia may be found as far north as Simpson in Canada. Within the United States the numerous valleys of Colorado, Wyoming, and Montana above

[1] A. G. Keller, Colonization, 1908.

[2] Henry Pratt Fairchild, Immigration, Introduction.

[3] Page 148f, e.g.

[4] E.g., Canadian National Problems, American Academy of Political and Social Science, vol. XLV. And Andre Siegfried, The Race Question in Canada, Paris, 1907.

[5] S. S. Vischer, Journal of Geography, vol. XX, p. 252. He enumerates "the thirty-six generalizations that are most useful."

an altitude of six thousand feet have perhaps less favorable conditions for agriculture than the still unexplored, unmapped principality between the Peace and the Liard rivers along the Mackenzie. Their growing season is no longer, and in favor of the Canadian North is its eighteen hour day.

"June," says Keefe, speaking of the Mackenzie basin, "is a perfect summer month with practically no darkness and for days nearly twenty hours of bright sunshine; the temperature sometimes reaches nearly as high as ninety."[1]

Camsell and Malcolm writing of the same region[2] speak as follows:

"Compared with Ottowa, Simpson has an average of three hours more sunlight daily for the summer months, which means about eighteen days of additional sunlight during the three months when sunshine is most important."[3]

Thus, to some extent predictions may be verified by the official documents of the Canadian government. The experimental farm of the government at Vermillion on the Peace river in approximately latitute 59° north has reported the possibilities of agriculture in northern Alberta. And reports of travelers down the Mackenzie in recent years indicate that in the Mackenzie valley as far north as the Arctic Circle such staples as potatoes thrive. According to Mr. Harris of the government farm at Simpson in approximately latitude 61° north, a measured half acre produced four hundred fifty bushels of potatoes.[4]

But favorable temperature, amount of sunlight in the growing season, and fertile soil are only a part of the factors that enter into consideration in a forecast of agricultural possibilities in the great north. The others are so important that they may well modify appreciably the favorable estimate of possibilities. East of Manitoba, aside from the Great Clay Belt, glaciation has

[1] Quoted by E. M. Kindle of the Geologic Survey, Geographical Review, vol. X, p. 388f.

[2] The Mackenzie River Basin, Geologic Survey, No. 92, Ottowa, 1919, p. 43.

[3] Quoted by E. M. Kindle, op. cit., p. 395.

[4] Cited by H. G. Evarts, Saturday Evening Post, October 15, 1921, in a fascinating account of a journey down the Mackenzie to McPherson. He reports thriving vegetable gardens with potatoes up to Good Hope within sixteen miles of the Arctic Circle, and refers to the official reports of Mr. Conroy. See also Kindle, op. cit., p. 395f.

scraped the soil away; and in British Columbia only the valleys have soil. Moreover, the taiga, or coniferous forest belting the world, in North America reaches in places nearly ten degrees farther south than in Eurasia.[1] The expense of clearing the coniferous forest is very considerable,—from (say) two to three hundred dollars an acre in the states of Washington and Oregon.

As shown by the textbook, this is a region of light precipitation, —a condition somewhat relieved by the frozen subsoil, however. Mr. Harris of the government farm at Simpson reported that his well entered frozen soil at five feet and passed out of frost at forty feet,[2]—a condition more favorable than that found at Nome, Alaska, however. The gradual temporary lowering of the frost line in the summer months provides moisture for trees and crops; but experience in Alaskan farming under the cleared taiga suggests that cropping lowers permanently the line of frost and that after a few years the insufficiency of moisture from below makes farming very uncertain.[3] In view of data of this sort the future of the great north must be viewed as one greatly limited by the facts of location and climate. The recent discovery of oil at Norman, about 63° north latitude, has, however, added a lure which may result ultimately in the development of the more certain resources of fish in the lakes and rivers and minerals in the mountains. The suggestion of Stefansson and others that the future development of this region should be contemplated not in terms of agriculture but in terms of fur, fish, herds of caribou and reindeer is based upon the intimate acquaintance with it which the most recent explorations give. Obviously, the teacher of geography must keep touch with every fresh investigation and exploration.

5. To geographical regions the textbook gives the bulk of the space devoted to Canada. The larger facts of location, relief, climate, resources, and occupations are systematically taken up,—a short paragraph to each of the less important political divisions in each region, several paragraphs to the more important ones.

In general in the treatment of Canada, the principle of beginning in each case with the outstanding physical character of the region, and then of each of its political divisions in

[1] M. E. Hardy, An Introduction to Plant Geography, Chapter XVI.

[2] E. M. Kindle, op. cit., p. 395f.

[3] For this and other illuminating statements in this section I am indebted to Professor George A. Barker, Colorado State Teachers College, Greeley.

turn, is followed. Aside from twenty-five lines on climate, the Dominion is not viewed as a whole. The regional organization of itself gives mechanically a certain variety to the narrative, though a certain monotony to the larger outline. The untrained teacher might or might not discover this organizing idea, and might or might not observe to what extent it is an effective one in each case, or where the point of contact with a region is otherwise than geographically determined. In so easy an organization there are obvious dangers quite comparable to those of the old topical treatment and the "Brace System." The "human significance" of a country's geography could be largely overlooked or lost in the systematic discussion. In fact, in the treatment of Canada in this excellent textbook the regional organization fails to isolate the central geographic factor in the development of the life of the Dominion: namely, the effective isolation of the western from the eastern provinces by what Canadians call "The Bridge,"—a wilderness barrier nearly a thousand miles wide lying between North Bay in Ontario and Kenora on the Lake of the Woods; "a region," says Porritt,[1]—"so poor as to warn away the settler." The Laurentian Upland is treated, but only from the viewpoint of a geographer interested in faithful general description.

The teacher using the book for the ends of "human geography" would need in addition to the good outline of the physical facts about the region which the book supplies, the illumination provided by much more detailed accounts, such as the government geological surveys; and in addition to the matter-of-fact interpretations of the distribution of population in terms of relief, resources, and occupations, the teacher needs to see the historical relation of the Upland to the development of the Dominion. This view can best be had from the angle of Canadians. Consider, for example, the following brief excerpts from Porritt:

"The journey over the Bridge takes twenty-one hours on the Imperial Limited, the fastest train that travels over the Canadian Pacific from Montreal to Vancouver . . .

"In winter, the temperature on parts of the Bridge . . . is lower than in any other part of any province of the Dominion . . .

[1] From Edward Porritt "Evolution of the Dominion of Canada," p. 40. Copyright, 1918, by World Book Company, Yonkers-on-Hudson, New York.

"For the most part . . . the Bridge is a wilderness with only the railway and passing railway trains to remind one of the civilization to the east and west of it. There can be no country anywhere in the British overseas dominions that is crossed by a railway, except the Karoo in Cape Colony, that yields less traffic—passenger or freight—than the Bridge . . .

"The Bridge was the great barrier to the opening out and development of the prairie country. . . . It remained a barrier against immigration and commerce . . .

"The wilderness from North Bay to Kenora is still a barrier. It is a barrier that to a considerable extent still isolates western Canada. It adds to the cost of living in the prairie provinces. Combined with a fiscal system that originated with and favors Canada east of the Great Lakes, it makes the prairie provinces the most expensive part of the British Empire in which to dwell . . .

"Canadian flour in normal times is cheaper in England than it is in the prairie provinces. Canadian bacon, for which Canadians pay from twenty-two to twenty-eight cents a pound, was sold in England before the war for from fifteen to twenty cents a pound. It is the same with fish, lumber or any commodity that is the product of the natural industries of Canada; and none of the extra price which Canadians pay goes to the grain growers of the prairie provinces . . .

"Except for transport services and for loans, the provinces in the east are of little economic importance to the grain-growing provinces . . .

"The economic importance of this geographic division of the dominion will increase as new homesteads are carved out of the 25,000,000 acres of surveyed lands that were available for settlement when immigration into Canada from England and Scotland and other European countries was brought to a standstill by the great war . . ."[1]

It is, after all, such intimate views as this that enable the skillful teacher to make geography live. In connection with each of the regions discussed in Canada, the teacher's need of wider knowledge than the textbook gives or suggests is apparent; and the opportunities are similarly great for the subject-matter specialist to marshal the material most likely to be usable.

The importance of wheat in Canadian economy, for example, is not suggested by the comparison the text makes between the "one-crop" prairie provinces and the wheat growing region of the United States. The traffic between west and east Canada in spite of the Bridge,—the commercial discontinuity of the Canadian and the United States wheat belts in spite of their geographical continuity,—these suggest the intervention of political factors in the sphere of geography. The "National Policy" of

[1] From Porritt's "Evolution of the Dominion of Canada," p. 41f. Copyright, 1918, by World Book Company, Yonkers-on-Hudson, New York.

Canada must be known by the geography teacher. The relation of Buffalo to the eastward movement of grain indicates the potence of a geographic factor even in the presence of a "National Policy" seeking to overcome it; the fact that Portland, Maine, not Montreal or Halifax, is the winter terminal of the Canadian Pacific speaks eloquently of river ice in the one case and icebergs and fog in the other. National Canada is perhaps the best example of the overriding of natural or geographical determinants by the forces of civilization,—in this case, the industrial revolution and the aspirations of nationalism. With a diversity of agricultural products probably not exceeding that of the state of Ohio, Canada can not be self-sufficient,—these are only samples of the kind of illumination the teacher needs.

The foregoing selections of subject-matter illustrate one aspect of the principle of *relevancy of scholarship* in the professional education of teachers. Not merely liberal studies in the field to be taught, but a planful widening of scholarship which will reveal the potentiality of accepted materials for the use of children in the public schools! "The teacher must know in a masterly way" the actual materials that are to be taught.

There are, however, other aspects of the teacher's scholarship that must claim the attention of the instructor in a professional school. Not merely the comfortable margins of knowledge that free the mind for fruitful interaction with the learner, but also a deeply appreciative attitude toward the materials to be taught must somehow be nurtured in the prospective teacher. Such an attitude should follow from a truly liberal course in any school. But it must be regarded as a major concern of the professional school for teachers. As shown in an earlier chapter, this idea of the function of teachers colleges, though perhaps dimly felt in earlier times, has only recently been brought clearly to attention.[1] The following expression from a book just off the press will supplement the earlier quotations:

"I doubt very much whether any one can be a good teacher if he does not feel enthusiasm for these 'common' thoughts of mankind as he finds them in the subjects which he teaches. They are the thoughts of the race, winnowed and garnered from centuries of trial and error. To teach them in a way that they seem to the pupil commonplace and uninteresting is a sacrilege."[2]

[1] Page 108f.

[2] Julius Boraas, Teaching to Think, p. 81, Macmillan, 1922.

In every subject taught in the teachers college the instructor should be responsible for bringing together the materials most relevant to ensuring a wholesome respect for formulated subject-matter. The possibilities in every field are considerable. The relation of the subject to civilization, its historical development, is perhaps the largest source of material for this purpose. The effective utilization of such material demands careful selection and the skill of the artist in so treating it as to fire the imagination of the student. Consider the following outline of such an attempt with physics in a western teachers college:

"Historical Physics: Probably the historical aspects of the school subjects offer the easiest insight into their relations to human life and problems. Physics, from the modern point of view, and practice, is more than a set of laboratory exercises to be memorized. It is a history of men facing baffling problems, and step by step finding a way to solve them. It is possible that this may be the best point of view from which to teach physics to *any* group of students. This course, however, is planned for those teachers of physics who have a scholarly interest in the evolution of various aspects of their subject. Probably its chief service lies in its bringing together many classical experiments and indicating their influence upon the development of physics,—which is a matter of considerable difficulty since there is no book written from this standpoint. Beyond this, for the sake of humanizing physics, the course exhibits the circumstances and conditions under which various men first performed the classic experiments. It is our belief that the teaching of high school physics may profit considerably from such a background study."

(Year Book, Colorado State Teachers College, Greeley, 1919.)

In recognition of the possibilities of historical geography, even in the elementary school some of the upper grade textbooks attempt a brief perspective over the growth of geographical knowledge; and in books upon the teaching of geography there are occasionally useful paragraphs in chapters upon this phase of the subject,—nowhere, however, with evidence of due appreciation of the teacher's need of a liberalizing view of the relation of the subject to the expanding of civilization. In a survey of the literature of the preparation of geography teachers there were few suggestions which appeared to indicate this point of view. Notable among the few were Professor John Paul Goode's provision in commercial geography for the history of the relation of iron, wheat, and sugar to civilization, and the illuminating treatment given to the former by Professor J. Russell Smith.[1]

[1] John Paul Goode, School Science and Mathematics, vol. XVIII, p. 235f, and J. Russell Smith, Commercial and Industrial Geography, p. 354; but especially The Story of Iron and Steel.

The possibilities of investing commercial geography with human interest through such instruction are sufficiently obvious. Why one should presume to teach the topic *iron* without seeking such illumination appears strange after one has considered how the use of that metal has transformed the life of the world.

But, a similar point of view is needed for *every* aspect of the subject of geography. Consider, for example, the elementary textbook's treatment of northern Canada.

The few and bare details given upon the "Provisional Districts of Keewatin, Mackenzie, and Franklin" are no doubt proportionate to their present, and perhaps,—excepting Mackenzie,—their future importance. They have a past, however, which for various reasons their present should not obscure. Few sections of the globe have a history at once so dramatic and so neglected as northern Canada. Provincial these districts are,—even primitive; and yet in their history they have a cosmopolitan aspect. Explorers of all nations have touched this wilderness of the north. What we know of northern Canada is inseparably entangled with the great enterprise of "the Governor and Company of Adventurers of England trading into Hudson's Bay," the Hudson's Bay Company. From the posts of its fur traders the most significant explorations were launched. Thence Sir John Franklin made an overland trip into the arctic; Hearne his explorations to the Coppermine river in Keewatin; Mackenzie to "The Frozen Sea" down the great river he gave his name to,—and across the Rockies to the Pacific; Fraser down his river to the Pacific; Thompson down the Columbia; McLeod up the Liard to Lake Dease; Campbell by the Stikien to the Pacific, later up the treacherous north Liard to lakes Frances and Finlayson, on to the divide, and still later by way of the Porcupine to the Peel and back by the Mackenzie,—mapping three thousand miles of hitherto unknown territory; Thompson to the Bow River pass, to the Kootenay district, to Athabaska pass; and so on. The teacher of geography who deals with Canada should know more than most of us do of the Great Company and the life it fostered, and at all events should know *how the larger features of the map took shape under the efforts of forgotten men.*

The familiar outlines, the boundaries of the northern districts, the names of islands, points of land, inlets, and rivers through the north,—all are now vague records of the long series of dauntless questers who contributed, often at the cost of their lives, the

details of the place geography that we handle in so matter-of-fact a way, lamenting the slight hold it has on the memory of pupils.

The textbook which has provided the nucleus for this discussion, however, draws upon the literature of northern Canada more than most. The pupils are directed to "Read about Amundsen's and Stefansson's travels among the islands of the Arctic Archipelago." No better geographical material could be found for the immediate end of a vivid appreciation of the conditions of life in the "Friendly Arctic." Advice so given to pupils comprehends also their teachers. What wider knowledge should the teacher have? A larger view of the significance of the efforts of these men, first of all! The word "travels" used in the assignment is perhaps by contrast appropriate. Amundsen and Stefansson were late in the long series of explorers, to whose faithfully recorded experience they acknowledge their debt,—Peary, chief of them all.

It would be well if for the public school teacher of geography the veil were lifted from these records and the human cost of common geographical knowledge considered. Nowhere does the conclusion of President Lord, that

> "The normal school must see to it that its students are introduced to a good part at least of the best literature upon each and every subject upon its curriculum,"[1]

appear more cogent than here; or the insistence of Bagley that, for the sake of proper respect for common subject-matter the *teacher* must know in general *how it has been acquired*, have greater force.[2] What knowledge is there the transmission of which would not take advantage from such a perspective? It is perhaps the unique function of a liberal education to make common knowledge luminous in its human significance. In the preparation of those who are to transmit it, such a larger view becomes a professional essential. It should not be left to accrue as a slow, unmarked deposit from long experience and wide reading, or even to the subtly planned, seemingly incidental remarks and questions by which the masterly teacher binds the simple fact to its universal meaning. In some sense the prospective teacher should relieve the difficult beginnings and rediscover the debt of the present to the past. What way is there except by contact with the records?

[1] Page 115. [2] Page 108.

The available literature has been partly suggested. There are detailed histories of the fur trade, for example. Beckles Willson's *The Great Company*[1] incidentally covers much of the exploration of northern Canada. The *Makers of Canada* series[2] covers nearly to date the fur trade and the wide ranging explorations of the pioneers of the north, with singularly vivid evaluations of the worth of their contributions. For the purpose of illustration, however, there is one notable journal of Canadian exploration that will serve better than any secondary account: namely Alexander Mackenzie's day by day records of his two journeys; first in 1789 from Fort Chipewyan on the Great Slave Lake down the Mackenzie to "The Frozen Sea;" and second, in 1793, across the Rockies to the Pacific Ocean. The narratives record two feats of magnificent courage and endurance, and largely met his hope that

"this volume, with all its imperfections, will not be thought unworthy the attention of the scientific geographer . . ."[3]

The second of these journeys has been characterized by Coats and Gosnell as an achievement probably without parallel in the history of exploration overland:

"It would be hard to overstate the difficulties and dangers as well as the importance of Mackenzie's journey. As the crow flies, over a thousand miles of rugged mountain and treacherous waterway lies between Ft. Chipewyan and the Pacific. The wandering of De Soto and his Spaniards in the wild country of the Gulf of Mexico, the crossing of the Rockies by the Astor traders, or the famous ride of Whitman from the Oregon to the city of Washington may equal it, perhaps, as feats of endurance; yet, the self-imposed and unflinchingly executed task of Mackenzie forms a record of courage and resourcefulness such as the annals of few nations can display. Geographically, the voyage was an additional blow—all but the final one—at the notion of a Northwest Passage. Mackenzie, gazing at the Pacific after the long battle with the Rockies and the wilderness is an incomparably greater figure than Balboa—nay, is worthy of being named with Columbus himself. He had penetrated a vast and unknown continent still in a condition of untamed nature and offering every obstacle of rapid river, impenetrable forest, sky-towering mountain, and the extremes of a variable climate. At every step new dangers confronted him. Strange

[1] Beckles Willson, The Great Company, The Copp-Clark Company, 1899; Arthur Dobbs, An Account of the Countries Adjoining to Hudson's Bay. Glasgow, Brook, and Company, Toronto, 1914.

[2] See Coats and Gosnell, Sir James Douglas, Morang and Co., Toronto, 1908.

[3] Alexander Mackenzie, preface to the "Voyages."

skies or the lodges of hostile savages were his only roof. Tribes who had never before seen white men had to be awed or conciliated. He was many a time face to face with starvation and with the mutiny begotten of despair. His final success was almost a miracle of victory. He is his own historian in a narrative that stands with that of Caesar for simple dignity and plain truthfulness . . ."[1]

In Mackenzie's preface to his journal its quality is suggested. Only a few fragments can be cited:

"These voyages will not, I fear, afford the variety that may be expected from them; and that which they offered to the eye is not of a nature to be transferred to the page. Mountains and valleys, the dreary waste, and widespreading forests, the lakes and rivers, succeed each other in general description; and except on the coasts of the Pacific Ocean, where the villages were permanent, and the inhabitants in great measure stationary, small bands of wandering Indians are the only people whom I shall introduce to the acquaintance of my readers . . .

"I do not possess the science of the naturalist; and even if the qualifications of that character had been attained by me, its curious spirit would not have been gratified. I could not stop to dig into the earth, over whose surface I was compelled to pass with rapid steps; nor could I turn aside to collect the plants which nature . . . scattered on the way, when my thoughts were anxiously employed in making provision for the day that was passing over me. I had to encounter perils by land and perils by water; to watch the savage who was our guide, or to guard against those of his tribe who might meditate our destruction. I had also the passions and fears of others to control and subdue. Today I had to assuage the rising discontents, and on the morrow to cheer the fainting spirits of the people who accompanied me. The toil of our navigation was incessant, and oftentimes extreme; and in our progress over land we had no protection from the severity of the elements, and possessed no conveniences but such as could be contained in the burden on our shoulders, which aggravated the toils of our march and added to the wearisomeness of our way.

"Though the events which compose my journals may have little in themselves to strike the imagination . . . nevertheless, when it is considered that I explored those waters which had never before borne any other vessel than the canoe of the savage; and traversed those deserts where an European had never before presented himself to the eye of its swarthy natives; when to these considerations are added the important objects which were pursued, with the dangers that were encountered, and the difficulties that were surmounted to attain them, this work will . . . I hope . . . be received as a faithful tribute to the prosperity of my country . . ."

These excerpts suggest the topics of an explorer's journal. In general he records the matters that would be of greatest use to whoever might follow him: latitude and longitude from day to day; the direction of the river and its depth, current, rapids, and

[1] Coats and Gosnell, op. cit., p. 54f.

the like; the possibilities of living on the land,—the fish, game, vegetation, soil, and the like; the depth of the thawing from day to day; the Indians and how they reacted to strangers, how best to deal with them; their customs; the nature of the information to be had from them about the country; the increasing length of daylight northward; the difficulties and dangers encountered and how they were met; and finally, a provisional map,—to secure the results to society.

What is the responsibility of the advance agent of civilization and how does he discharge it? The clear language of Mackenzie may be taken as a standard:

"Simplicity and truth is all I presume to claim. . . . I have described what I saw, with the impressions of the moment which presented it to me. The successive circumstances of my progress are related without exaggeration or display. I have seldom allowed myself to wander into conjecture; and whenever conjecture has been indulged, it will be found, I trust, to be accompanied with the temper of a man who is not disposed to think too highly of himself . . ."

Evidence of his truthfulness has been abundantly furnished by time. The careful closeness of his observation is suggested in casual remarks upon the gray-eyed savages that he met and his conjectures that there must have been a great change in the climate of the region that he traversed.

Aside from the immediate interest of such narratives, however, there is, or should be, for the teacher, the deeper interest which springs from the consciousness that such records are the first simple phase of the long process by which civilization takes hold of a continent and turns its resources to the uses of man. For the teacher, above all, it is important that the human cost of knowledge be appreciated.

This section may appropriately close with another quotation bearing upon this phase of the teacher's equipment:

"How important these historical perspectives are to specialized efficiency can be determined only by careful experimentation, but it is safe to hazard a guess that one's conduct is appreciably modified in the direction of enhanced efficiency by viewing each problem that one confronts in the light of its genesis, and in the light of its relations to human life in general . . ."[1]

The Organization of Instruction

So far, the main concern of the discussion has been with the teacher's stock of knowledge and with the problem of ensuring a

[1] W. C. Bagley, Educational Values, p. 238.

fruitful attitude toward it. Incidentally the problem of the organization of instruction has been touched. The major factors involved have been summarized. With regard to method the author has little to add to the general discussion earlier given. The view of the editors of the *Journal of Geography* in regard to the relation of method to subject-matter[1] is obviously that supported by this study. The two should go hand in hand.

The initial problems are those of making dynamic connections with the students' experience of geography, building up a fruitful method of study, and ensuring the adaptation of instruction to the children to be taught. These are problems to be met in terms of many operative factors, which only the instructor in a given situation is competent to evaluate. The suggestion of Professor Dodge and Miss Kirchwey, however, regarding the influence of the students' previous method of study upon their attitude and success in learning, is probably always in need of consideration. In a given case it might furnish the best clue to the attack upon the subject. If (as might still readily happen) the students have acquired their knowledge of geography by the old topical method, perhaps in the case of such subject-matter as has been considered in this discussion, no more illuminating approach could be made than to have the students recall the items of the old topical outline, raise the question of their importance, reveal (perhaps by a diagnostic test or stock-taking) the inadequacies of their knowledge and then open up the adequate way of viewing *location* and *area*. What, for example, does Semple mean by saying that

"The location of a country or people is always the supreme geographical fact in its history?"[2]

The importance of a more useful organization than the time-honored one would then be apparent.

The predominance of deductive work in upper grade geography indicates the teacher's need of careful preparation for that type of teaching. To this end the plan suggested by Professor R. M. Brown for the elementary school treatment of climate, for instance, might be utilized with great profit in a class of prospec-

[1] Page 135.

[2] Ellen Semple, Influences of Geographic Environment, Chapter V. The suggestion is that this chapter or material performing a like service be used in such case.

tive teachers.[1] It is the deductive development lesson of the anticipatory type described by Bagley.[2] It presupposes mastery of the basic principles of climate and uses a succession of maps for practice in inference and the organization of knowledge. Starting with a bare outline map marked with parallels and meridians the students note the range of latitude and longitude, the smoothness or roughness of the coast line,—draw such inferences in regard to climate as the limited data permit, state the limitations of the inferences in terms of data not at hand, and pass to the second map which permits further inferences. Relief, winds for January and June, rainfall, and soils are thus covered; then maps of vegetation, animal life, commerce, and the distribution of population provide the data for verification. The utility of such a plan either for diagnosis or study is patent. It compels organization.

If, however, the students chanced to have been well trained from that angle, a new viewpoint might be secured by beginning as Professor Teggert suggests, with the distribution of population and working back to causes.[3] This, it is hardly necessary to say, is distinctively the procedure of the lower grade work.

The professional treatment of formulated subject-matter implies the adaptation of instruction to the future teacher's problems on a given level. The psychology of geography has not contributed much specific help as yet. The teacher of geography, as of other subjects, however, has constant opportunity to discover the specific difficulties encountered by the learner, to make the learner conscious of the elements of these difficulties, and of the conditions under which his own mastery is achieved.[4] Doubtless the pooling of the experience of geography teachers would bring to light a considerable list of difficulties worthy, because of their bearing on effective teaching, of the planful attention of the teacher of teachers. The difficulty of some topics is so outstanding as to prevent their escaping attention. The problem of the change of seasons is one:

"The difficulty to an adult is not in understanding the diagrams showing the inclination of the earth's axis to the plane of its orbit, and the persistence of the axis pointing in the same direction throughout its annual

[1] Elementary School Teacher, vol. IX, p. 293.
[2] W. C. Bagley, The Educative Process, p. 308f.
[3] Journal of Geography, vol. XVIII, p. 146f.
[4] Page 83.

course; neither is it in seeing that the sun is sometimes overhead at the Tropic of Cancer and sometimes at the Tropic of Capricorn, on the diagram. The difficulty is in translating the diagrams in which one looks at the Earth from the outside into terms of actual sight where one looks at outside objects from the Earth."[1]

Analyses of this sort are needed for all the constant or recurring difficulties which the subject presents to the learner. If the analysis just given is valid, it indicates the need of directed observation. This, as a matter of fact, is a practice of successful teachers of geography. It is, for example, an item of the suggestive course cited above from the Central Michigan State Normal School, as the following quotation shows:

"These variables (i.e., wind, rainfall, types of climate) are discussed from the point of view of how they should be taught in the elementary school, which gives the student a knowledge of both subject-matter and method. For example, in teaching the seasons (in the lower grades) do not begin with the shape, size, and motions of the earth, but with the effects of the seasons on children's games, . . . the occupations of adults, . . . thus leading up to the causes of the seasons, which are to be discovered out of doors,—by observation of the sun's apparent path across the sky,—and the conclusion is reached that seasonal changes are due to changes in the length of day and night and the angle of the sun's rays. My students must know the sun's apparent path across the sky for any day in the year for any latitude, because this is the basis of all knowledge of climate. In connection with the work for the upper grades or high school the shape, size, and motions of the earth are introduced. The conception of the shape and motions of the earth leads to maps and mapping, in which maps are discussed and made while discussing how they should be taught to children. . . . Weather, winds, climate,—these are studied from the standpoint of teaching them, but they must be known thoroughly by the students."[2]

Professor C. T. McFarlane of Teachers College, Columbia University, has collected, but not published, some interesting evidence indicating the need both of giving specific attention to the correcting of serious misapprehensions in regard to various phases of mathematical geography and of paying close attention to the problem of evaluating the textbooks that deal with mathematical geography. The recurrence of certain errors is sufficient indication of unanalyzed difficulties.

The use of maps introduces a whole series of difficult conceptions,—distance, direction, projection, scales, and symbolism.

[1] Archer, Chapman, and Lewis. The Teaching of Geography in Elementary Schools, p. 163.

[2] Professor R. D. Calkins, Mt. Pleasant, Michigan.

The teacher needs specific preparation for dealing with these, preparation which could be better given if more intimate knowledge were possessed concerning the actual difficulties that they present to the learner. In connection with problems of this sort appears the wisdom of Professor McConnell's insistence upon the instructing of teachers in the use of textbooks.[1] This is an abiding need of teachers and properly a constant concern of their professional education. It is probably most acute in geography and history.

Studies of the characteristic weaknesses or incomplete successes of the public school teaching of geography would furnish valuable clues to the teacher in the professional school. In the absence of sufficiently penetrating studies of this sort, perhaps the real situation may be approximately revealed by diagnostic tests at the opening of the courses. School surveys appear not to have thrown much light upon the specific difficulties encountered in teaching the accepted materials of geography.

In connection with the use of material on the development of geography as a subject, the counsel of Professor McConnell is precisely to the point. Speaking of industry, conservation, and similar topics, he expresses the following conclusion:

> "Whatever historical aspect these subjects may have must be closely interwoven with basic geographic considerations which must be taken into account in any historical treatment of them."[2]

Except as interwoven or *integrated* with the topic under consideration the historical material runs the hazard of being formally handled, as if for its own sake, and failing to make its liberalizing contribution to the teacher.

Finally, reference may be made once more to the teacher's need of perspective over the development of school practices in the teaching of geography. In connection with instruction in the various units of subject-matter the question of their school use will be continually arising. As shown in an earlier chapter, "present aims and practices" constitute one of the most frequent topics in courses for teachers in every field. The substantial values of the various types of teaching that have been developed in the past should be in no danger of being neglected because of enthusiasm for newer emphases. It is, for example, already apparent that the reaction against "place geography" swung

[1] Journal of Geography, vol. XIX, p. 260.

[2] School Science and Mathematics, vol. XX, p. 117f.

practice altogether too far away from an important phase of geography. Similarly, the old topical outline, though shamefully abused, had values on the side of organization that should rather be capitalized than altogether abandoned. There are not wanting suggestions that the possibilities of formality inherent in the "regional plan" are considerable. A genetic view of school practices in the case of each of the subjects should be furnished by subject-matter teachers; and the best time to draw upon this material is when the class is considering effective means of presenting material.

II. Literature

The reasonable demands of scholarship in the professional education of the teacher of literature for the elementary school have perhaps in practice not been so clear as the demands upon the prospective teacher of geography. The implied responsibility of the public school teacher as stimulator, guide, and director of children in their reading would, if duly appreciated, demand a wide acquaintance with all that children in ordinary communities might be led to or from reading for, once begun, reading can lead anywhere, and children's libraries with trained librarians devoted to capitalizing for society the love of vicarious experience are not yet numerous,—and their development should not in any case rest upon the deficiencies of the teacher's education. If, in addition to this aspect of the problem of the teacher, the nature of literature is considered, the importance of generous scholarship is apparent.

"Perhaps even more important than history in affording a medium for the transmission of powerful ideals is literature. There can be little doubt that conduct has been profoundly modified by the drama and the novel. The influence of such writers as Voltaire and Rousseau upon the French people in the eighteenth century; the influence of Dickens upon certain phases of English life; the influence of "Uncle Tom's Cabin" upon the American Civil War,—these are but a few instances of the recognized power of literature."[1]

"Praise of books" has not been overdone. Perhaps the first need of the prospective teacher is some such view of literature as the following:

"Let us not forget our duty as conservators of a great national tradition. . . . The national spirit is embodied in our literature; for literature, if it

[1] W. C. Bagley, Educational Values, p. 196.

be more than mere diversion or craftsmanship, must be the crystallization of all that is nearest the heart of the race. And this spirit it is the special privilege of us English teachers, more than all others, to impart . . ."[1]

But the relatively small amount of literature that even the most extensive elementary school courses of study use, together with its comparative simplicity, have probably been factors making for underestimation of the possibility of framing college courses in literature for the professional preparation of teachers for each of the well-marked divisions of the elementary school. While in schools for teachers there are occasionally courses entitled "Materials and Methods in Literature for the Intermediate Grades," or the upper grades, which vaguely suggest recognition of the possibility, these are still very few and in character closely allied to the "methods" type of course,—often, indeed, given by a teacher of methods. To this the teachers of literature may well object,—as they have here and there done:

"The gulf between the studying of English and the teaching of English is not bridged and can not be bridged by courses in pedagogy, because the teachers in pedagogy have no special training in English and no experience in teaching English."[2]

Here is implied the thesis that "good special method is a function of subject matter courses,"[3] and the obligation of the subject-matter specialist in the professional school to adapt his instruction to the needs of prospective teachers. Though the need has of late years been frequently adverted to,[4] the results are still meager.

The often fine academic equipment of the teachers of literature in normal schools and teachers colleges is frequently not accompanied by the professional point of view. They have the scholar's belief in the efficacy of his subject-matter,—a fundamental qualification for the teaching of any subject; and, under the prevalent type of organization of curricula, that very devotion has joined with the usually scanty equipment of their students to make

[1] Allan Abbott, English Journal, vol. VII: 1f.

[2] A. B. Noble, The Preparation of College Teachers of English, English Journal, V: 665.

[3] Bulletin Number Fourteen, The Professional Preparation of Teachers for American Public Schools, p. 227.

[4] See English Journal V, especially the Report of the Committee on the Preparation of College Teachers of English, and of the National Council, p. 33f.; volume VII, p. 322f., J. V. Denney, The Preparation of College Teachers of English.

them keenly conscious, and properly so, of the need of providing for extensive study of certain bodies of standard literature,—so that, especially west of the Appalachians, there is ordinarily a strong tendency toward purely liberal arts courses in poetry, drama, essay, and fiction.[1] The division of purposes in normal school and teachers college appears clearly in the departments of literature and English.[2] While the required courses in literature in curricula for elementary school teachers are few and often restricted to the "methods" type, the massed "offerings" in such schools cover the field from the literature of the seventh century to "contemporary lyric verse" and the "short story;" and in many the provision for "free electives" enables the prospective teacher to get, if he chooses, a generous sampling of the whole range of literature or to make intensive studies of special phases.

In the great majority of these courses there is nothing to indicate any emphasis due to the professional purposes of the school. This, of course, would not infallibly prevent their serving certain professional ends; but "survey courses" covering "the development of English literature from 670 to 1798," even when conducted by gifted teachers of literature, have both inherently and by tradition an ineluctable remoteness from the characteristic work of the elementary school teacher. The principle of selection, the emphasis, in such courses is academic rather than professional. The same is true of the systematic courses in "the development of the novel," "the familiar essay," "Greek and Latin literature," "classic literature of continental Europe," "nineteenth century poetry," "nineteenth century prose," "the Elizabethan drama," "the Elizabethan drama exclusive of Shakespeare," "Victorian poetry," "lyric poetry," and the like. They are a part of an organization of instruction which does not reflect the professional attitude. The following comment by the authors of a most suggestive book attempting to develop a professional course in literature for elementary school teachers is by implication an arraignment of such purely academic courses:

"Students preparing to teach in the grades have been studying textbooks from which literature for children has been excluded, regardless of its

[1] Cf. the "offerings" of normal schools in literature with those of Universities, e.g.

[2] See English Journal VII, p. 35 of the Report of the National Council of English Teachers on English in Normal Schools.

artistic worth. Consequently, many teachers have not been prepared to teach literature in the grades. . . . Children's literature is also literature for adults, and . . . it is not only the child's inheritance, but also the inheritance of humanity . . ."[1]

"What the teacher needs in the classroom is not to have had his subject once, but to have it now."[2]

These excerpts suggest that the first step in the framing of professional courses in literature for teachers in the elementary schools is to secure adequate and relevant scholarship. The point is made quite explicit in another paragraph of the suggestive book already drawn upon:

"Only a limited number of these prospective teachers were in any real sense acquainted with what may be called the basic traditional material. Rhymes, fables, myths, stories were so vaguely and indistinctly held in mind that they were practically of no great value. It was therefore not possible to assume much real acquaintance with the material needed for use with children, and the securing of such acquaintance seemed the first essential . . ."[3]

The immediate task of the teacher preparing students for the work of teaching literature in the elementary school is here defined in terms of familiarity with the basic literary materials of the elementary school. What this means is amply and concretely exhibited by the authors. The literature of the elementary school is roughly classified into ten large groups and the body of the book, consists of numerous complete pieces of literature of each sort: Mother Goose jingles and nursery rhymes (146 selections); traditional fairy stories (33); modern fairy stories and fantastic tales (15); fables and symbolic stories (49); myths (13); poetry (108); realistic stories (7); nature literature (11); romance cycles and legend (16); biography and hero stories (5). Each section is introduced by a discussion calculated to give a fruitful point of view for the appreciation of the materials themselves, something of perspective over their history, and a stimulus to further reading.

What the nature of the additional scholarship to be sought for the teacher should be is clearly indicated:

"As soon as the teacher gets some real grasp of the elements of the problem, this book must yield to the more elaborate and well-knit discussions of specialists in the various subjects treated."[4]

[1] Curry and Clippinger, 1921, Children's Literature, p. 8.
[2] Allan Abbott, English Journal, vol. II, p. 71f.
[3] Curry and Clippinger, op. cit., p. 5.
[4] Curry and Clippinger, op. cit., p. 6.

Admirable provision is made to facilitate this extension of scholarship: attached to each group of selections is a classified bibliography covering the most usable historical and critical material, a list of the modern collections, references to special studies, articles giving an appreciative point of view, and books and articles dealing with the specific problems of teaching.

It is especially significant to note the importance attached by these authors to genetic studies:

"Who was Mother Goose?" they ask, and go on to say: "The answer to this, as to other questions suggested below, may be of no direct or special interest to the children themselves. But teachers should know some of the main conclusions arrived at by folklorists and others in their investigations of the traditional materials used for basic work in literature . . ."[1]

Consider along with these conclusions and directions the point of view of the authors of Bulletin Number Fourteen:

"A course in literature for children offered to prospective teachers should involve much more than a study of literature in the form in which little children will assimilate it. The very fact that many of the poems and stories of childhood are among the oldest and most persistent products of the world's culture suggests at once the wealth of material available for a teacher's course in this subject. It goes without saying that a teacher can use this literature with children more effectively if he knows its antecedents and origins, and consequently realizes that he is dealing not with trivial materials valuable simply because they are adapted to immature minds, but rather with a significant and precious human heritage . . ."[2]

The quotations thus far brought forward provide two guiding principles for the course-maker: (1) the principle of close relevancy of scholarship; and (2) the principle of the illumination of perspectives.

The application of the first is a measure of economy as well as of professional efficiency. A course specialized for the primary grades, for example, could cover a really impressive amount of literature, reveal the sources of further material, provide standards of evaluation, and at the same time carry the prospective teacher far in the technique of its use with children. Such a course, it seems clear, should form the core of the primary teacher's equipment in literature. And in so deciding there need be no risk of incurring the charge that it condemns the teacher

[1] Curry and Clippinger, op. cit., p. 19. See also F. T. Baker, Shakespearean Studies, p. 39f.

[2] The Professional Preparation of Teachers for American Public Schools, p. 150.

to a narrow specialization. It is not assumed that such a course would meet all the needs that the primary teacher, as a superior human being, has for literature; but it would be an error to suppose that the literature involved in the lower grades is in itself narrow.[1] There is little danger of overestimating its human significance, and much of failing to get any conception of this abiding quality of folk literature.

That the opportunity to shape a liberalizing college course dealing with the literature of the primary grades is far from meager is apparent in the bibliographies of scholarly research into the origin, development, and transmission of folklore, fairy tale, fable, and myth. The possibility of making such a course is exemplified in the work of Curry and Clippinger; and it is worthy of note that in the preface to her *Study of Fairy Tales* Miss Kready also gives evidence of having appreciated the possibility:

"This presentation," she says, "incidentally may serve as an example of one method of giving to teachers a course in literature by showing what training may be given in a single *motif* . . ."[2]

The *motif* she chose is one upon which the generous resources of the ripest scholars have been amply expended. There can be no doubt, therefore, of the substantiality of the training that might be given in a course dealing in a large and human way with any of the forms of children's literature. Even a cursory sampling of the results of the devoted study of folk literature by scholars of the quality of Max Müller, Andrew Lang, Joseph Jacobs, G. P. Frazer, R. C. Temple, and others is sufficient to confirm the belief.

"It is perhaps not necessary," said Joseph Jacobs, "to inform readers who are not fellow students that the study of Folk-tales has pretensions to be a science . . ."[3]

It is necessary, however, to insist upon the pertinence of the results of this science to the everyday work of the teacher of children's literature,—and, therefore, upon the necessity that courses for teachers shall capitalize the available back-ground literature of the traditional jingles, tales, and fables. Knowl-

[1] The Professional Preparation of Teachers for American Public Schools, p. 149.

[2] Laura Kready, A Study of Fairy Tales, p. vi.

[3] Joseph Jacobs, English Fairy Tales, preface.

edge of the past of these omnipresent literary forms is, to the teachers who transmit them, quite comparable in value with knowledge of the origin of species to the teacher of biology. What are fairy tales, and whence did they come? are relevant questions for the teacher of fairy tales, and should be handled in the literature course rather than in separate courses in mythology, folk-lore, and the like. Acquaintance with the record of the trial of rival hypotheses regarding the genesis of fairy tales, summarized even so briefly as, for example, they are by Kready,[1] could hardly fail to dignify and vivify the work of transmitting fairy tales. Whether the fairy tale is "detritus of myth," or itself a final form of a myth of sun or dawn or rain or thunder; whether all fairy tales rose in India; and whether the wide distribution and common features of these tales are due to "identity of early fancy,"—consideration of such questions has offered life-long problems to brilliant scholars, and the summation of their explorations is in many cases so illuminating that those teachers of the basal literature in our public schools who have no acquaintance with this aspect of their materials must be said to have suffered a very great deprivation. Consider Andrew Lang's critical notes on Perrault's *Popular Tales* as an example of the richness of the contributions of a seasoned scholar to the everyday work of public school teachers of fairy tales. Are there any who would not feel a fresh interest in *The Three Wishes*, *Sleeping Beauty*, *Little Red Riding Hood*, *Blue Beard*, *Puss in Boots*, or *Cinderella* after such a glimpse as he gives at the long past and the shifting variety of incident in these classics? [2]

The worth of study of such matters by the elementary school teacher lies in its direct enhancement of the value of the basic materials with which she deals in her daily work. Miss Kready makes the point thus:

> "In stressing the history of fairy tales, the purpose has been to present fairy tales as an evolution. . . . The study of the natural history of the fairy tale as an art form is not necessary for the child. But for the teacher it reveals the nature of fairy tales and their meaning. It is an aid to the scholarly command of subject-matter which is the first essential for expertness in teaching."[3]

The outcomes especially desired for the teacher from such study, however, belong primarily in the category of atti-

[1] Laura Kready, op. cit., Chapter IV.

[2] Andrew Lang, Perrault's Popular Tales, pp. xlii–cxv.

[3] Laura Kready, op. cit., p. x.

tudes.[1] It is in the importance of right attitudes toward the elementary subject-matter that the justification must be found for attempting in teachers' courses to give a perspective over each of the significant topics. Consider, for instance, whether *Jack the Giant Killer* would not be taught with more zest by the teacher who knew in what varied forms this resourceful hero had appeared to the children of different nations; and whether consciousness of the similarity of the stratagems of giant-killers the world over[2] would not in itself be illuminating. And would not *Reynard the Fox* have more significance to the teacher who knew the history of the fable?[3] The effort expended in acquiring such margins is trifling in comparison with the satisfaction they bring. It is probable even that some knowledge of the technique of the skilled collector of folk-lore would pay dividends in subsequent class-work. It would at least tend to show that "folk" are not a mysterious separate variety of *homo sapiens*, endowed with peculiarly sure literary sense. The following bit from the preface to *Tales of the Punjab* contributes reality to the conception of folk literature and should induce gratitude to the scholars whose work has brought the subterranean stream to flow in the light:

"A carpet is spread under a tree. . . . In a very few minutes, as a rule, some of them [i.e., the villagers] begin to edge up to it, and as they are generally small boys, they commence nudging each other, whispering and sniggering. . . . By and by a group of women stop to gaze, and then the question 'What do you want?' invariably brings the answer 'To see your honor.' . . . Once the ice is broken the only difficulties are, first, to understand your visitors, and secondly, to get them to go away. When the general conversation is fairly started, inquiries are made by degrees as to how many witches there are in the village, or what cures they know for fever and the evil eye, etc. At first these are met by denials expressed in set terms, but a little patient talk will generally lead to some remarks which point the villagers' minds in the direction required, till at last, after many persuasions, some child begins a story, others correct the details, emulation conquers shyness, and finally the story-teller is brought to the front with acclamations: for there is always a story-teller par excellence in every village —generally a boy.

"Then comes the need for patience, since in all probability the first story is one you have heard a hundred times, or else some pointless and disconnected jumble. At the conclusion of either, however, the teller must be profusely complimented, in the hopes of eliciting something more valuable.

[1] See W. C. Bagley, Educational Values, Chapter V.

[2] Thomas Keightley, Tales and Popular Fictions, Chapter VI.

[3] Joseph Jacobs, Reynard the Fox, preface.

But it is possible to waste many hours, and in the end find yourself possessed of nothing but some feeble variant of a well-known legend, or what is worse, a compilation of oddments which have lingered in a faulty memory from half a dozen distinct stories. After a time, however, the attentive collector is rewarded by finding that a coherent whole is growing up in his or her mind out of the shreds and patches heard here and there, and it is a delight indeed when your own dim suspicion that this part of the puzzle fits into that is confirmed by finding the two incidents preserved side by side in the mouth of some perfectly unconscious witness. Some of the tales in this volume have been thus a year or more on the stocks before they have been heard sufficiently often to make their form conclusive."[1]

It would be useful for the teacher of this "basal" literature to get a conception of the breadth of the foundation of interest and incident upon which the structure of literature stands. For this purpose the compact chapters on the "Analysis of the Tales on the plan adopted by the Folk-lore society of England" and the "Survey of the incidents in modern Indian Folk-tales," with which the *Tales of the Punjab* closes would provide a nucleus if not almost a sufficient view. These chapters afford an impressive illustration of how human patience systematically brings to order the interminable tangle of folk-lore and discovers the apparent limits both of he native literary interests of a people and of the ingenuity of the storytellers. Some two hundred tales, for example, reduce to four classes, thirty-five main topics, and three hundred four sub-heads.[2]

Let Joseph Jacobs add to this the following orientation:

"The story literature of India is in large measure the outcome of the moral revolution of the peninsula connected with the name of Gautama Buddha. . . . The idea of connecting a number of disconnected stories, familiar to us from the *Arabian Nights*, Boccaccio's *Decamerone*, Chaucer's *Canterbury Tales*, or even *Pickwick*, is directly traceable to the plan of making Buddha the central figure of India folk-literature."[3]

By virtue of what qualities have these ancient tales survived? is another question which is worthy of a college course and immediately pertinent to the work of the public school teacher. The standards of literary criticism must be invoked to answer it; and beyond this must be considered "the secret springs and hidden motions" of human or folk interest. Thinking of the

[1] Flora Annie Steele and R. C. Temple, Tales of the Punjab, preface.

[2] F. A. Steele and R. C. Temple, op. cit., pp. 327–395. See also Andrew Lang, Custom and Myth, pp. 10–28.

[3] Joseph Jacobs, Indian Fairy Tales, Notes and References, pp. 227–255.

former, Miss Kready phrased a need which is common to all teachers, and to meet which is one of the major responsibilities of professional scholarship:

"The relating of the tale to literary standards will give to the teacher a *greater respect* for the material she is handling and a consequent understanding of its possibilities . . ."[1]

The possibility offered by this phase of the primary teacher's study has been brilliantly suggested by Brian Hooker, from whom the following brief extracts are made:

"*The Three Bears* illustrates the whole technique of the casket scene in The Merchant of Venice. *Jack the Giant Killer* and *Beauty and the Beast* exhibit the norm of two eternally great types in fiction, the picaresque story and the story of the uncouth lover. Bluebeard is the ancestor of all mystery stories; and a detailed analysis of *Cinderella* would show almost the whole craft of construction. Nor is this meant in any strained or whimsical sense . . ."[2]

The seriousness of the assertion is justified in the analysis which Mr. Hooker gives. The value of such orientations as the following from the same author is self-evident:

"Their making had the immense advantage of being traditional: so that their form depended not upon the skill of any one author, but was pushed and coaxed and pulled into perfection by innumerable successive narrators; and in that process whatever was bad art and therefore uninteresting was dropped out and forgotten, while every touch that could enhance the tale was added by whoever thought of it . . ."[3]

Similar opportunities exist in the case of each of the groups of literature above mentioned. The meaning of scholarship is nowhere better exemplified than in the work of Joseph Jacobs upon the background of the Aesopic fable. To have followed him even a little way is to look thereafter upon this literary form with greater respect and to have a fresh vantage for teaching it. To see the relation of the fable to the political life of Greece is to get one suggestive view of the subtle connection of literature with life.[4]

Upon myths the body of critical literature is so tremendous as to make the problem of selection the chief one, and the same is

[1] Laura Kready, op. cit., p. vii. My italics.

[2] Brian Hooker, Narrative and Fairy Tale, Bookman, vol. XXXIII, p. 389f.

[3] Brian Booker, op. cit., p. 390.

[4] Joseph Jacobs, The Fables of Aesop, preface.

obviously true of the other groups of literary material. What examples of literary criticism, for instance, will contribute most to the illumination of children's literature, to the elevating of the teacher's own point of view, to stimulating a wider personal use of literature? These are problems for the specialist.

In the foregoing discursus the difference between a purely liberal arts course in literature for the personal pleasure and spiritual growth of the college student and a professional course in literature in the interest of effective public school teaching of literature has been somewhat delineated. The two would inevitably overlap very far, of course, for

> . . . "Literature for children is likely to have a strong interest for adults. . . ."[1]

The aim of appreciation would be held in common in both types of course. And it is worth noting in connection with the sort of genetic studies advocated that the professional course is not unique in using non-literary materials. Good liberal arts courses in literature accepting, as they now frequently do, the aim of appreciation, make free use of non-literary materials to aid appreciation.[2] It would apparently not be absurd to believe that the professional course, in so far as it deals more generously in perspectives calculated to reveal the racial significance of the literature it treats, would perhaps have the greater cultural value of the two. The question, however, is the specific one of relevancy to the work of the public school teacher. The danger inherent in the simplicity of the elementary school materials is that familiarity will breed a measure of contempt for them, which from every point of view is inveterately hostile to the fundamental purposes of public education. The aim of appreciation can not be realized without the existence of a conditioning genuine respect for the elementary subject-matter.[3]

Further differentiation between the two types of course appears in connection with the organization of instruction and the technique of teaching, because the purpose of the student preparing to teach is in significant ways different from the purpose of the student who has only the individual ends of pleasure and culture to secure.

[1] Curry and Clippinger, op. cit., p. 8.
[2] George Woodberry, The Appreciation of Literature, pp. 16–20, e.g.
[3] Page 44.

The problem of the adaptation of instruction to those who are to receive it is nowhere more important than in the teaching of literature, the body of successful experience accumulated in the long history of teaching more useful,[1] or the value of a genetic view of teaching practices more apparent. A course in literature for teachers will necessarily deal with "present aims and practices" and will best serve the ends of such consideration by viewing procedures in the light of their development. The teacher in the public school needs to know the general sweep of practice in the school use of literature.[2] For the lower grades a summary of the evolution of school readers would probably be useful.[3] The value of the best modern primary readers will certainly be enhanced by inspection of the older ones; and the meaning of respect for children's interests and capacities will be more apparent after such inspection.[4]

With the introduction of whole classics into school readers the elementary school study of literature began. The upper grade teachers especially need to be familiar with the development of the practices which descended to the elementary school from the higher schools. To them it will be distinctly useful, after a glimpse at

". . . The old bad method, which Professor Lounsbury, of Yale, in the seventies, was the first to attack, of teaching textbooks about literature instead of the literature itself . . ."[5]

to view the succeeding stage of critical analysis of literary masterpieces as a natural outcome of the school goals of "understanding" and "discipline,"[6] and the subsequent emphasis on "appreciation" in the sense of immediate enjoyment as a reaction from the obvious evils of ill-conceived or too detailed analysis.

[1] See Curry-Clippinger, op. cit., p. 370, for a suggestive comment to the effect that the teacher of literature to children may profit from studying how Lafcadio Hearn taught the subject to Japanese students.

[2] F. T. Baker, Shakespeare in the Schools, pp. 31–41 in Shakespearean Studies, Columbia University Press, 1916.

[3] Rudolph Reeder, Historical Development of School Readers. See also F. T. Baker in The Teaching of English; Carpenter, Baker, and Scott, Chapter II.

[4] The use of old textbooks to illuminate the study of method is nowhere more valuable than in the case of reading.

[5] H. S. Canby, English Journal, 1921, p. 367.

[6] Chapter III, p. 108.

The failure of the method of "dissection" or "vivisection" was that it often resulted in distaste for literature so treated.[1] The remedy appeared to lie in a treatment calculated to secure pleasure.

The rivalry of these two plans is typical of the development of methods, and consideration of the matters at issue will show that the new point of view was a reaction to what was unsuccessful in the older one. Seeing that the critical analysis, though overworked and often ill-judged,[2] expressed nevertheless a fundamental idea of the value of study, and that the aim of appreciation, though emphasizing a neglected (and possibly the central) value, often amounted to a deprecation of study,—this along with daily exemplifications of how study and appreciation work together may be enough to set the prospective teacher's mind in the right attitude toward conflicting methods of teaching literature,—a very important professional service.

The problem of the teacher's attitude toward literature itself, however, is the central one. To promote the personal use of literature may be said to be the aim of the liberal arts course in literature. Whether one's devotion to literature is for the sake of the ideas it contains, the attitudes it embodies, the emotions (real or aesthetic) that it arouses, the workmanship it conceals, the sensuous experience it provides, or any probable combination of these may make no especial difference to the teacher in a school of general education. Does it in a professional school for teachers?

There is at least one aspect of the problem that is peculiar to the professional school. The ends that literature may serve are as varied as the different phases of experience, crucial and non-crucial, that it embodies, and the different types of treatment that it gives them. The probability is that by original nature people respond to these in fundamental ways that can not be much changed. Tastes develop, it may be said; but possibly

[1] For an ironical treatment of the analytical method see F. N. Scott, Proceedings of the North Central Association of Colleges and Secondary Schools, 1912, pp. 67–72. Quoted by S. C. Parker, Methods of Teaching in High Schools, p. 260f.

[2] See Arlo Bates, Talks on Teaching Literature, p. 42 for a sample. The best example of genial scholarship applied to the genetic treatment of the school use of literature that the author has found is F. T. Baker's brief essay on Shakespeare in the Schools, pp. 31–41 in Shakespearean Studies, Columbia University Press, 1916.

their essential quality, if it could be isolated, would be found to be pretty constant throughout a life:

"It is obvious that securing good teachers of English is primarily a problem of selection. . . . Neither academic scholarship nor training in schools of education is of much value in changing fundamental traits or endowments."[1]

A predilection for certain types of literature, for certain forms, for certain themes, for a certain emotional attitude and type of treatment may be a permanent personal attribute. It is at least likely that it is as clearly marked as is the difference between the literary and the scientific bents of mind.[2] No one knows to what extent training may modify the basic factors in the aesthetic pleasure which, for example, lyric poetry gives to those who have an affinity for it. In literature more than elsewhere the description of the *good* requires the qualification *for whom?*—and *when?*

In a somewhat varied experience as a student of literature, watching curiously the responses of other students to the literature they studied, and the varying attitudes of the teachers who taught it, the "pure crude fact" of irrevocable biases for which no substitution can be made has come to stand out in the writer's mind as an element in the problem of preparing teachers of literature. The predilections of the teacher must somehow be suffused with tolerance for others' predilections, so that individual bents may not obscure or hide the variety of the values of literature. It is easy to scorn the tastes of others to no good purpose. Tennyson may to the teacher be only a pretty sentimentalist and Browning the king of poets. But to view Browning as a rude and arrogant person elbowing his way amid crowds he does not understand and Tennyson as the artist *par excellence* may be a view as sound,—or as unsound! Whether Matthew Arnold or John Burroughs best evaluates Carlyle and Emerson is a personal problem of the reader.

The liberal arts end of furthering the personal use of literature must, for the teacher, be supplemented by some evaluation of the divergent theories of the uses of literature. It would be useful for both purposes to consider the chaos of preferences of those who

[1] F. T. Baker, English Journal, vol. II, p. 338.

[2] American Journal of Psychology 28: 238, Gardner Murphy, An Experimental Study of Literary versus Scientific Types.

live by, or upon the margins of, literature, or the widely divergent attitudes of artists toward an essentially similar situation.[1] This would furnish some incentive to independence of response and the personal use of literature, and would afford the occasion for indicating (which is all that could be done) the deep seated differences which explain the opposition of critics apparently of equal right to opinions upon a given matter, and the divergent attitudes of artists perhaps equally good.

A few quotations may illustrate the differences of view that obtain among those best entitled to speak, and may give point to the conclusion that teachers need to become conscious of their own predispositions:

". . . It is useful to recognize at once the fact that literature is not an object of study but a mode of pleasure; it is not a thing to be known merely like a science, but to be lived . . ."[2]

"The mere presentation of an object is not the whole of teaching. A class in biology might find the sight of a crayfish very interesting but could hardly be said to have studied the crayfish until it had learned something of its ancestry, its habits, and its general biological relationships. Neither is a piece of literature known until the relation of its parts is comprehended and the general ideas or feelings it is meant to convey appreciated. In a given piece of literature there are words to be learned, pictures to be formed in the imagination, structure to be considered, allusions to be understood and appreciated, figures of speech to be felt and comprehended, a fundamental notion to be grasped, comparisons with other mental possessions to be made, and in growing degree as we pass from the lower to the higher grades, taste and critical judgment to be cultivated."[3]

"There has been of late a distinct and, I think, altogether salutary reawakening among college teachers of English to the importance of the intellectual aspect of literature. More and more the tendency has been to lay stress in our courses upon those works which are primarily or in large degree the vehicles of ideas . . ."[4]

"My own conviction is that if English is to be thus justified (i.e., on grounds cultural and disciplinary) it must be primarily by what I am terming the discipline of ideas . . ."[5]

"In teaching literature (itself elusive) to that elusive thing called mind, you may assemble your facts and theories with the greatest care, and still at

[1] As, for example, Henley's *Invictus*, and John Burroughs's *Serene I fold my hands and wait;* or Margaret Deland's *Good for the Soul* and James Lane Allen's *The Mettle of the Pasture.*

[2] George Woodberry, The Appreciation of Literature, p. 14.

[3] F. T. Baker, The Teaching of English (Carpenter-Baker-Scott), p. 166.

[4] Stanley Chase, English Journal 5: 532f.

[5] Irving Babbitt, English Journal, 1921, p. 62.

best have to guess at what kindles the spark, sets up the wireless wave that transfers the educational impulse from teacher to student . . ."[1]

From some angle or other the problem thus posed has been considered many times. Out of many, two examples of useful orientation for the prospective teacher may be cited: F. T. Baker introduces a brief but singularly lucid and catholic discussion as follows:

"We are met at the outset by a very interesting question: *Can literature be taught?* Some ingenious arguments have been offered to show that it can not. Literature, we are told, is a thing of the spirit, of the emotions, intangible, elusive, evanescent under the light of analysis like the dewdrop under the sun . . ."[2]

Upon the variety of the uses that may be made of literature, E. L. Thorndike writing upon *The Aesthetic Emotions* distinguishes the following: ideas, real emotions, enjoyment of workmanship, sensory pleasures, and pseudo-emotions. It is difficult to make an extract from so compact an essay, but the following may be suggestive:

"It is obvious that what we would at first blush call aesthetic appreciation turns out to be now one thing, now another, now a complex. Indeed many people . . . take definite ideas or ordinary emotional feelings to be the aesthetic emotions of which they read. Many a one there is who reads his Browning in dead earnest as a sort of philosophy—commentary on human nature and moral guide,—happy to get new ideas and feel new hatred of this and love of that; and thinks he gets all there is in poetry for any one, and wonders how intelligent people can endure Keats . . ."[3]

The complexity of the problem of fostering appreciation for literature is only partly apparent in the foregoing discussion. It would still be difficult if literature were a single thing instead of "a criticism of life." If it dealt only with ideas, the technique evolved for other content studies would be immediately applicable. But the peculiar contribution of literature lies not in its commerce with ideas but with emotions,—and not with emotions in general but with the esoteric phases of emotions known as the aesthetic.

[1] H. S. Canby, English Journal, 1921, p. 370. Cf. with the above quotations the following early view of the goal of literary study: "Literature must . . . from age to age present us with serial pictures of the progress of the human mind; but the last picture in the gallery must present a perspective of the whole series." Edward Mansfield, American Education, 1851, p. 243.

[2] Carpenter, Baker, and Scott: The Teaching of English, p. 164.

[3] Teachers College Record, 1901, vol. II, p. 195f.

What these are, what their conditions are, and how they operate, the science of aesthetics attempts to explain. The college teacher of literature will be familiar with the theories of the emotions that have been presented and their applications to literature and the other arts. Is there a contribution to make from this angle to the preparation of elementary school teachers? Of this teachers of literature will be the best judges; but to a layman, the possibilities do not seem to extend much beyond a few brief readings. There is no theory of the emotions that covers the range of the kinds of aesthetic pleasure which literature provides. In general it will be more profitable to multiply the possible aesthetic experiences of the students than to attempt to explain them. To know that there are baffling problems in this field, however, would surely be useful,—especially in the presence of those who deprecate aesthetic preoccupations; and to have a number of quite deliberate experiences in attempting to isolate the sources of charm in pieces of literature would probably be a valuable contribution to the teacher's equipment, even though the outcome could not be much more than the discovery that beauty and "form" are apparently merely the fine wire of highest conductivity of thought and feeling; the question, To what end? each must answer for himself.

Along with the danger that accompanies the limitations of individual susceptibility to literary pleasures (whether as a result of native bias or of incomplete development of aesthetic capacity) may well be mentioned the not uncommon abuse of literature by those whose zeal for non-literary ends of various sorts sometimes leads to a prostituting of literature analogous to that often involved in the use of history to teach morals.[1] The integrity of the artist's purpose is entitled to respect. As it matters whether what is taught as history is true or not, so it matters, from the point of view of appreciation, whether the author's purpose in a piece of literature is allowed to determine its use in school. To reconstruct imaginatively the situation to which a piece of literature is a response is the immediate problem of the appreciator.

On the side of practice the problem presented to the teacher of teachers is more tangible. There is already a considerable body of successful experience in nurturing appreciation; and this belongs to the professional courses for teachers of literature.

[1] Proceedings, N.E.A., 1903, p. 578f.

New though the idea of "lessons" in appreciation is, there are already valuable chapters for the guidance of the teacher. That of Strayer[1] is best known to the rank and file of American teachers. But the brilliant exposition given by F. H. Hayward,[2] should become indispensable. It would perhaps not be too much to say that in the conception of the "Red Letter Lesson" he has made to the teaching of other subjects a contribution which if duly realized would go far toward lifting instruction to the level of a fine art.[3]

The special difficulties inherent in mastering work in literature have been somewhat apparent in what has already been said. There is no "psychology of literature" comparable in concreteness to that of, say, arithmetic. Fragments of such a treatment exist in the numerous psychological studies of rhythm,[4] humor,[5] the comic, and the like, and one preliminary attempt to formulate a program was projected in 1918.[6] Aside from the analysis by Thorndike these do not appear to offer so much to the teacher as is already consolidated in standard treatises on aesthetics.[7] Among the difficulties, however, there are two that have fortunately received considerable attention. In a provisional way, children's tastes and interests in literature have been studied with some care by several investigators, and the results deserve a definite place in the education of elementary school teachers. Three brief monographs essentially bring the data of a dozen studies up to date.[8] Suggestive of possibilities barely touched as yet which ingenuity may yet capitalize is the frontier of "tests"—both of capacities for and of attainments from the study of literature.[9] As a means of making the need of the student apparent, they have for the teacher of literature a value similar to that realized from tests in other fields. On the side of vocabu-

[1] George D. Strayer, Brief Course in the Teaching Process, Chapter VII.

[2] F. H. Hayward, The Lesson in Appreciation, Macmillan, 1917.

[3] W. C. Bagley, lectures on the Technique of Teaching.

[4] T. L. Bolton, Rhythm, American Journal of Psychology, vol. VI, p. 145f.; see volumes XXVI and XXVIII, Ruchmich, for bibliography.

[5] L. W. Kline, Psychology of Humor, American of Psychology, vol. XVIII, p. 421.

[6] June Downey, Journal of Applied Psychology, vol. II, p. 366.

[7] Kate Gordon, Aesthetics, e.g.

[8] C. E. Jones, 1912, Sources of Interest in High School English; A. M. Jordan, Children's Interests in Reading, 1921; Fannie Dunn, Interest Factors in Primary Reading Material, 1921.

[9] See, e.g., English Journal, vol. II, pp. 69–77.

lary the publication in 1921 of Thorndike's *Word Knowledge in the Elementary School*[1] makes available the first thoroughgoing study of the extent and variety of the demands made by vocabulary upon elementary school pupils.

III. Arithmetic

The opportunities to make professional courses in arithmetic which shall be of collegiate rank have been set forth with greater clarity than the opportunities in the other subjects considered. As early as 1903, in the proceedings of the National Education Association, appeared a presentation of the professional needs of the teacher of mathematics in the high school,[2]—one that dealt with the problem in a large and generous spirit which left little to be desired. The discussion was organized about the distinction between the scholar's and the teacher's equipment in mathematics, and bears clear internal evidence of its connection with the normal school concern over the professional treatment of subject-matter. The following excerpts fairly well represent the exposition:

". . . Exactly what knowledge of the subject do your professional courses propose to give that the ordinary college course does not give?

"This is not at all the question as to the general professional training of the teacher. . . . Everyone recognizes that professional courses rarely turn out a great teacher, just as academic courses rarely turn out a great scholar. It considers simply the question as to the distinctive sort of knowledge to be imparted to a teacher but not to a mere scholar . . .

"What knowledge should . . . a teacher possess, particularly as to mathematics, and of such knowledge, what may the mere scholar omit?

"No students should be admitted to the professional courses preparing for such work [i.e., the teaching of mathematics in high school] until they have completed the ordinary courses in elementary mathematics, which are now defined to include the calculus . . .

"Thus far the knowledge of the teacher and the scholar is the same. Each must know more than his own field of work in order to get his bearings. But in addition to this work, what further knowledge of the subject must the teacher have?

"First, he should have at least one year of work in the history of mathematics, and preferably two years. He may be a scholar in the narrow field of geometry without this, but he is a far better teacher with it.

"Secondly, he should know, as the scholar need not, the relation of this subject to the human mind as seen in the history of teaching it. Not to know this is to challenge a waste of time in useless or criminal experiment.

[1] E. L. Thorndike, Teachers College Record, 1921, p. 334f.

[2] David Eugene Smith, Proceedings, N.E.A., 1903, pp. 554–9.

"Thirdly, he must know the reason for allowing the subject place in the curriculum, and in particular the world's present demands.

"Fourthly, he must know the further relation of the subject to the pupil's mind today as it appears in the best-known ways of presenting it; and this, as we have seen, is no small part of 'knowledge of the subject.'

"Fifthly, in spite of the abuses of the word 'correlation,' the teacher must know, as the mere scholar need not, the relation of each part of a subject to the other parts, so that education is given more as a unit than was formerly the case.

"Finally, the teacher's knowledge of a subject differs from that of a scholar in the selection made from the great body of knowledge. . . . The teacher must . . . guard his selection, studying preferably that . . . which touches in some way human life and interest. Many a man takes his doctor's degree in Latin and begins teaching well acquainted with the best French, German and Italian authorities bearing upon Horace and Terence, and familiar with the manuscripts by which those writers are known to us, but absolutely ignorant of the wealth of literature bearing upon those authors whose works he will teach. The proposition is wholly untenable that the mere habit of investigation is all that is essential in advanced courses for teachers; the material of the investigations, the nature of the selection, is of vital importance . . .

"I have endeavored not only to show that there exists a real difference in the knowledge of the subject possessed by the teacher and the mere scholar; but also to call attention to the following natural corollaries to this proposition:

"1. A considerable amount of knowledge of a subject is necessary on the part of a teacher in addition to that required of a mere scholar, and in addition to the so-called professional courses.

"2. It is impossible wholly to divorce professional and academic courses.

"3. A considerable amount of so-called academic work not duplicating high school and college courses, is necessary in any professional school.

"4. But more attention should be given to the selecting of courses. . . . I know of no matter demanding more careful attention on the part of those having to do with the higher education of teachers than this."

Two items in the foregoing quotation are notable: the emphasis upon the value, to the teacher, of knowledge (1) of the history of the subject, and (2) of the history of methods of teaching it. In regard to the former an even more significant statement was made fifteen years later by the same author.

"The story of our numbers, of the world's attempts to count, of the many experiments in writing numerals, and of the difficulties encountered through the ages in performing our everyday computations—all this is so interwoven with the history of humanity as to have an interest for every thinking person. As the world has grown, so the work with numbers has grown; when the world has faced the mysteries of the universe, numbers have assisted in solving the problems; when commerce and science have shown new needs in computation, arithmetic has always been ready to lend a hand. The history of mathematics is no small part of the history of civilization.

"This being the case, it seems proper to relate at least some portion of the story of numbers to the pupils in our schools. It can be quite as interesting as any other story of civilization, for it touches upon a subject with which the pupils in our schools are in daily contact, adding new values to the problems of arithmetic and giving a new perspective to the whole study of mathematics . . ."[1]

Whether such material is transmitted to elementary school pupils or not, its value to the teacher of the fundamental arithmetical processes seems incontestable.

Another aspect of the courses needed in arithmetic, was exemplified in 1916, by Dean Thomas M. Balliett. In a critique of the normal school curriculum he dealt especially with the proper scope of the courses in geography, history, and arithmetic. In general his argument appears to accept the separation of methods from subject-matter. The gist of his plea in arithmetic is for what in earlier days would have been called "the practical," but which in this case had a clearly professional bearing. The following quotation will illustrate:

"In arithmetic the emphasis should be placed on commercial arithmetic, of which elementary teachers know least. A daily lesson for half a year might ordinarily be sufficient. Teachers generally know how to make calculations, and can solve problems; but they are generally unacquainted with the nature of the business transactions to which the problems relate. I have frequently found teachers who have been teaching stocks and bonds as a topic in arithmetic who had no knowledge at all of the differences between stocks and bonds as securities, and of their relative security as investments. They would invest their own money in childlike simplicity in fake stocks of copper, mines, rubber plantations, etc., which promised 20% dividends . . ."[2]

Taken together, the foregoing statements of the teacher's needs suggest some of the most promising extensions of his arithmetical scholarship. Others might be suggested—as, for example, in connection with interest and banking, the idea of credit; and in connection with insurance a general conception of the types of life insurance policy. But even though the possibilities of commercial arithmetic are probably not sufficiently developed in current normal school practice, in this final section of the study, it seems advisable instead of essaying to illustrate the opportunities of such work to attempt rather to illustrate

[1] David Eugene Smith, Number Stories of Long Ago, 1919, preface number two.

[2] Proceedings, N.E.A., 1916, pp. 458–460.

the professional treatment of a topic whose limits are fixed,—a topic, moreover, with which the prospective teacher is approximately as familiar as the teacher of teachers: namely, one of the "four fundamental processes."

Long Division

What are the opportunities for giving a professional treatment to the topic *long division?* First, a summary of factors that should be recognized in the organization of instruction will be useful. Obvious though they are, still in normal school practice they are not always observed.

Conditioning Factors

The students are not beginners. In the elementary school they have acquired such facility in the process as is usual to elementary school graduates; and as high school students some of them at least will have restudied arithmetic in "senior reviews." They will all possess considerable facility in the operation. They will have adopted a definite technique, which may or may not be the best. They may or may not have mastered the deductive explanation of the process which textbooks in arithmetic usually give. But in general, they probably possess almost adequately, most of the necessary equipment of the teacher of long division in the way of skills. Such an *a priori* inventory, however, suggests a number of needs.

Clues to Organizing Instruction

As prospective teachers they need "new views" of the familiar topic. First of all, they need appreciation of the significance of the process in the development of the subject, insight into the mathematical needs and capacities of children, and especially, a keen consciousness of the difficulties that the process ordinarily presents to beginners. Here are definite problems for the college teacher. The learning experiences of the students as beginners will largely have faded from memory, and must be somehow recalled. In so far as there are growing points in present practice these constitute a part of their needs; and the merits of rival practices will need to be considered. It will probably be desirable to deal briefly with the question of educational values. The time available for the topic will of course be a factor. Points of this sort are clues to the organization of instruction.

Such needs as have been mentioned may be made obvious to the students in various ways, best known to the experienced teacher of arithmetic to prospective teachers. An initial diagnostic test may be, often is, the best approach. The general plan of organization may be largely predetermined by the curricular pattern of the school. An advanced textbook in arithmetic may provide an outline for the systematic treatment of the process, and the instructor may amplify and supplement it by lectures and readings; or an elementary textbook such as will be used by the children to be taught may be employed in the normal school class,—providing an organization presumably more closely adapted to the needs and capacities of the child, but open to objection as a textbook for college students. The school of the "advanced academic" type will probably prefer the first, and the school of "reviews" and the school emphasizing methods, the second plan. The characteristic values of the two are not mutually exclusive, but both may be largely realized by either plan. There are obvious advantages in a systematic treatment of an elementary school subject on a college level,[1] which are not incompatible with the "pedagogical" orientation of the prospective teacher. The actual textbook to be used by the elementary school pupils may with advantage be systematically considered at the end of the course or in connection with the study of "present practices." Here it will be assumed that a systematic treatment of the topic is adopted.

The Subject-matter

The following sequence of topics will serve the purposes of discussion:

1. The study of an exposition of the technique now employed in long division.
2. The rationale of the process.
3. The development of the present technique.
4. The psychology of long division.
5. Standard tests in long division.
6. Present methods of teaching long division.
7. Genetic study of school practice in the teaching of long division.

[1] See an illuminating discussion of "Psychological and Logical" by William H. Kilpatrick in the Journal of Educational Method, vol. I, No. 7, March, 1922.

8. Questions of educational values.
9. The "literature of the subject."

1. It is perhaps more usual to begin with "educational values;" but the few words that would be given to it might derive some advantage from the fresh study of the process and its logic and a perspective over the development of the topic and of methods of teaching it.

2. The question may arise as to the advisability of studying the rationale of the process. The major objection has already been answered.[1] To this may be added the fact that it is incorporated into many, if not most, of the textbooks now in use, that many schools require it to be taught, and finally that there are not infrequently pupils who in the absence of necessity for attempting to understand it still have a curiosity about it which the teacher should be abundantly able to satisfy. The objection to teaching it to pupils is doubtless sound and has been urged since the days of Warren Colburn at least. His conclusion, in 1830, that rationalistic "explanations embarrass rather than aid the learner" is exactly in harmony with Thorndike's.[2] It is a part of the teacher's more "masterly knowledge" however, and if the teacher must teach it, of course he must master it; so long as deductive explanations are included in the textbooks, it will be the part of wisdom to fortify him against contingencies. It will be to his advantage as well as that of his pupils for him to study it under direction of a teacher who will orient him in regard to the limitations of its value. If after mastering it he studies such expositions as those given by Thorndike[3] he will be equipped to utilize the inductive exposition, armed against reliance on the deductive, and able to give it at need.

3. The study of the development of the present technique of long division is introduced for the sake of giving due appreciation of the process as a hard-won item in the racial inheritance. Obviously the treatment of the topic would have to be selective even in the longest courses in arithmetic now given in schools for teachers. In the shorter courses only a glimpse could be given; but it could be an inspiring glimpse. That it can be interestingly set forth is exemplified in *Number Stories of Long Ago*.[4] In either

[1] Page 110.

[2] E. L. Thorndike, The Psychology of Arithmetic, pp. 60–69.

[3] E. L. Thorndike, New Methods in Arithmetic, Chapter IX; The Psychology of Arithmetic, p. 60f.

[4] D. E. Smith, Number Stories of Long Ago, 1919, Chapter VII.

case the specific professional end in view would require selection. The problem may be stated thus: Here is an item of knowledge and skill which has become a common possession of all but the least fortunate; it must be effectively transmitted to the rising generation; but the very commonness of the process and the facility which the prospective teachers possess in it tend to acceptance of it as a matter of course, while the difficulties of the process to the beginner and the force of current discussions of relative values may easily cooperate with such familiarity and automatic skill to lead to less effective teaching than should be accepted. The success of common education depends at bottom upon the teachers' having the right attitude toward what they teach. How can an appreciative attitude be assured? The following suggestions are offered:

The instructor, when he reaches the topic, will make his best effort to invest it with proper dignity and to launch consideration of it upon a high level. If he can cast about it (as some do) something of the glamour of poetic appreciation, well and good. It can have but little time, however, and the student's facility in the process will likely make it difficult to fire his imagination without the aid of a fresh experience. The solving of a dozen problems by one or more of the intricately involved methods of the past will afford such fresh experience, and will probably do more for appreciation of the established practice than the most skilful praise of it. Thanks to the results of scholarship in the history of mathematics such material is abundant. Leslie's *Philosophy of Arithmetic*[1] offers, for example, a view of the earlier cumbrous techniques. Consider the following, which he attributes to the Hindus: The problem is to divide 1797848 by 472. The work is arranged as follows:

```
      3
      4
    320
   58160
1797848 | 3809
 472230
    472
     472
      472
```

The explanation given by Leslie follows:

[1] John Leslie, Philosophy of Arithmetic, Edinborough, 1820, p. 166f.

"The divisor, 472, is placed under a corresponding portion of the dividend . . . in which it is contained 3 times; then thrice 2 is 6, which taken from 7 leaves 1, to be written above it; thrice 7 is 21, which taken from 79 leaves 58 above it; and thrice 4 is 12, which taken from the 15 leaves 3. The remainder for the next division is therefore 3818, which contains the divisor, repeated one place further back, 8 times. Now, 8 times 2 is 16, which taken from 18 leaves 0 and 2 to be placed above and below these figures; again, 8 times 7 is 56, which taken from 80 leaves 24; and 8 times 4 is 32, which extinguishes that number. The remainder for a new division is only 4248 which, passing over one place, contains the next divisor, when shifted to the end, 9 times; but 9 times 2 is 18, which taken from 48 leaves 30; 9 times 7 is 63, which cancels the 3 and takes 6 from the 42, leaving only 36; and lastly, 9 times 4 is 36, which is therefore extinguished from the board. All the figures being successfully obliterated, the result only of the operation is retained."

This, or perhaps the simpler Arabic process,[1] or even both, might be used in order to make the worth of the present procedure very apparent to those who are to pass it on.

It is possible that a skilful teacher could realize further values from such an exercise. As suggested earlier, the students will largely have forgotten their own difficulties in mastering long division. Such an exercise will probably help to recall such difficulties. Following, then, the suggestion of Calvin Stowe, President Parsons, and the authors of Bulletin Number Fourteen, the teacher might direct their attention seriously upon these experiences and thus pave the way for the study of the psychology of the process.

4. For the effective treatment of the psychology of the process there is considerable material which is suggestive even to the non-mathematical mind. It is a useful part of the professional material of the teacher of arithmetic in teachers' colleges. The role played in the development of the normal school by the scholar's failure to adapt instruction to the capacities of children is clear. The first step of the teacher of teachers is to seize the clues offered by the characteristic difficulties which his subject presents to beginners. Here the psychology of arithmetic is most fruitful. A quotation from a recent book on the teaching of arithmetic will illustrate:

"Long division is difficult (1) because it requires 'judgment' in selecting the figure to try as a quotient figure, (2) because it is complex, requiring shift from division to multiplication to subtraction to bringing down the

[1] John Leslie, op. cit., p. 166f.

right figure, and (3) because it has few uses which appeal to children as important . . ."[1]

These, then, are specific data for the teacher of teachers—clues to the organization of instruction. If he follows the general principle that "the subject should be taught with the aim of the student's teaching it again in due season;" or, in other words, if he attempts to "adapt his instruction to the needs of teachers," he will marshal the problems and like Calvin Stowe "give at every step the best method of inculcating them." This Thorndike does[2] with instructive detail for each of the difficulties mentioned. Such material must be regarded as an indispensable part of the course in arithmetic in teachers' colleges.

5. One phase of the technique of determining the range and character of arithmetical difficulty is covered by "standard tests." The story of the devising and refining of these and of their widening use in improving instruction will form a notable chapter in the history of education. They meet a want that has long been keen. The critical literature that has grown up about the problems of marking and grading presents the background of this topic and should be known at least in general outline by every graduate of a professional school for teachers as a guarantee of due appreciation of the contribution of standard tests. The early ideal of "self-comparison" as the most fruitful motivation of effort[3] finds here a definite technique. The widespread interest in and use of standard tests renders discussion of their value superfluous, even if the author were equipped to give it. The major question here is that of the proper location of instruction in this technique. This has been touched above[4] with the conclusion that in a teachers' college each subject-matter teacher must treat the material for his own field. This, of course, does not mean that a special course in *Tests* and *Measurements* may not also be maintained by such schools.

The remaining four topics represent material that should be drawn upon throughout the treatment of the various units of instruction.

6. Present methods of teaching long division would be somewhat illustrated in the instructor's own work, and, unless

[1] E. L. Thorndike, The New Methods in Arithmetic, p. 166f.

[2] E. L. Thorndike, op. cit., p. 166f., and the Psychology of Arithmetic, see index for specific phases of the problem.

[3] American Institute of Instruction, 1834, p. 44f.

[4] Chapter III, p. 121.

the training school were very badly organized, would certainly be illustrated in classes observed there. There would be numerous explicit references to present practice wherever contrasts between present and past are made. Representative elementary textbooks of today would doubtless be considered a necessary part of the equipment of a class studying present practice and the evaluating of them would be facilitated by examination of older textbooks. The treatment of the rationale of the process, for example, would provide occasion for references to the present attitude toward it; and the topic would offer an opportunity to anticipate the treatment of the evolution of methods of teaching.

7. The genetic study of teaching-methods in each of the school subjects has only been begun. For arithmetic and history there is probably the most satisfactory material; in these the general sweep of school practice and the high points in its evolution have been made available by scholarly teachers of subject-matter. The existence of such admirable summaries gives a tremendous advantage to teachers in these fields, but by no means absolves them from the duty of becoming acquainted at first hand with the chief records of changing practice,—namely, the textbooks in which gains are consolidated and reforms projected. Every school for teachers would profit from a carefully made collection of the textbooks of every decade and the establishing of an expectation that subject-matter teachers especially should be very familiar with such records of practice. With such supplements as this would provide, the value of, say, D. E. Smith's chapter on *How Arithmetic Has Been Taught*[1] would be multiplied many fold in the flexibility of the teacher's control.

8. Though the treatment of educational values belongs late in the pre-service education of teachers, it can not wholly be avoided in any course. As pointed out earlier[2] it has always been a topic of absorbing interest in American education. The general principle for the teachers college is that teachers must be rendered efficient in whatever they are to do. This is perhaps the prime condition of their opportunity to do what ought to be done. In the ordinary course of life long division may occur only infrequently. In school life it occurs frequently and there are at least sufficient opportunities for the school to capitalize life's

[1] D. E. Smith, The Teaching of Elementary Mathematics, Chapter IV.

[2] Chapter III, p. 115.

occasions for it. On this topic Thorndike offers the following sensible comment:

"Long division is useful chiefly in planning, cost accounting, and scientific work. . . . All that can be done is: First, accept this situation and try to turn it to some account by telling the pupils that long division is useful as a sort of examination or test of abilities acquired and that if they do it well it will be proof that they can use their multiplications, additions, and subtractions . . ."[1]

9. On the last item, nothing further will be said. Even this brief account has drawn constantly upon "the literature of the subject." The scholarly teacher of arithmetic will be able to marshal the most relevant material for the orienting of his students. The standard historical works of Fink, Cajori, Smith, and others should be accessible to students. It may be assumed that the rapidly growing body of contemporary psychological and "pedagogical" literature is available in every professional school for teachers.

[1] E. L. Thorndike, New Methods in Arithmetic, p. 70.

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Vita

Edgar Dunnington Randolph was born August, 27, 1878, at Gays, Illinois. His early education was received in the public schools of Moultrie County, Illinois. In 1899 he entered the Eastern Illinois State Normal School, Charleston, Illinois. After one year of study he taught two years in the rural schools of Moultrie County, returning in 1902–03 to the Eastern Illinois State Normal School, from which he was graduated in 1905. The two following years he taught Literature and Latin in the public high school at Mattoon, Illinois. From this high school he passed to the department of Literature in the Indiana State Normal School at Terre Haute, Indiana. From Indiana he moved in 1907 to the Colorado State Teachers College, Greeley, Colorado, where to 1908 he was critic teacher in the intermediate grades. In 1909–10 he was critic teacher in the upper grades. In the period from 1907–11 he was enrolled as a Saturday student in the University of Denver, Colorado, and received in 1911 the A.B. degree. During 1911–12 he was principal of the elementary school of the Training School of the Colorado Teachers College. He resigned at the close of 1912, and entered Teachers College, Columbia University, New York, in mid-year, 1913–14, remained in residence through two academic years, with summer sessions, and received the A.M. degree in mid-year, 1915. During the last year he served as student assistant in Educational Sociology, under Henry Suzzallo. In the autumn of 1915 he returned to the Colorado Teachers College as Professor of Educational Sociology and Social Economy, serving in that capacity to 1918. From 1918 to 1920 he gave half time to organizing the extension service of the college as a system of in-service training for public school teachers. From 1920 to 1922 he was associate in education at Teachers College, Columbia University, with W. C. Bagley.

His few publications are mainly short monographs appearing as bulletins of the Colorado State Teachers College between 1917 and 1920: "An Outline of Child-welfare," 1918; a "Study of Juvenile Delinquents in Weld County, Colorado,"—in collaboration with Walter Lee and Judge Herbert M. Baker, 1919; and the

seven pamphlets comprising the Educational Survey of the Colorado State Teachers College, 1917–20,—a co-operative faculty enterprise in which he served as chairman. Aside from these may be mentioned an inductive study of language errors: "Conventional Aversions *versus* Fundamental Errors in English,"—published in the Pedagogical Seminary, September, 1917, and reported in the Sixteenth Year Book of the National Society for the Study of Education; and "A Course in History for the Elementary School,"—in which he collaborated with Ernest Horn and others.